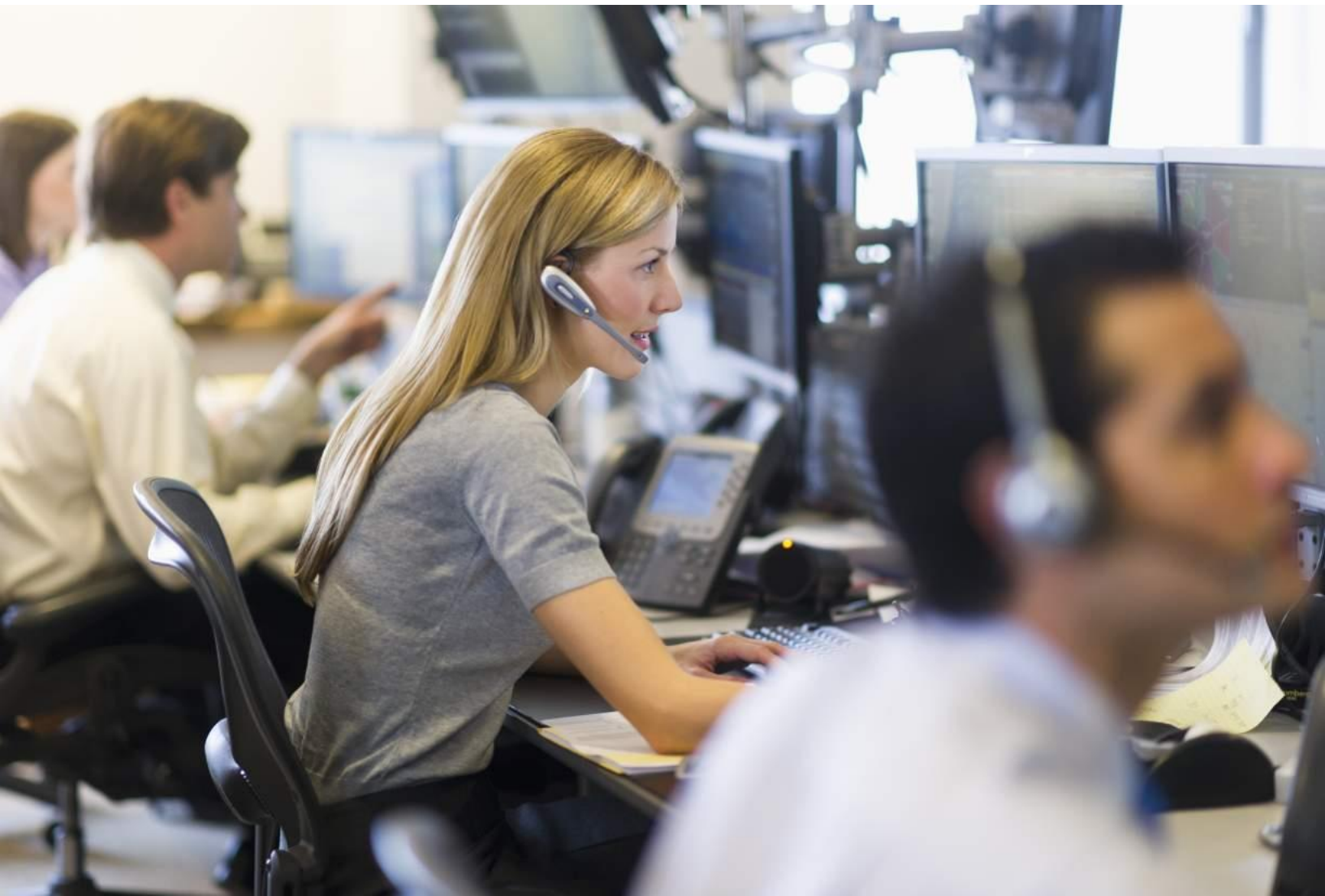
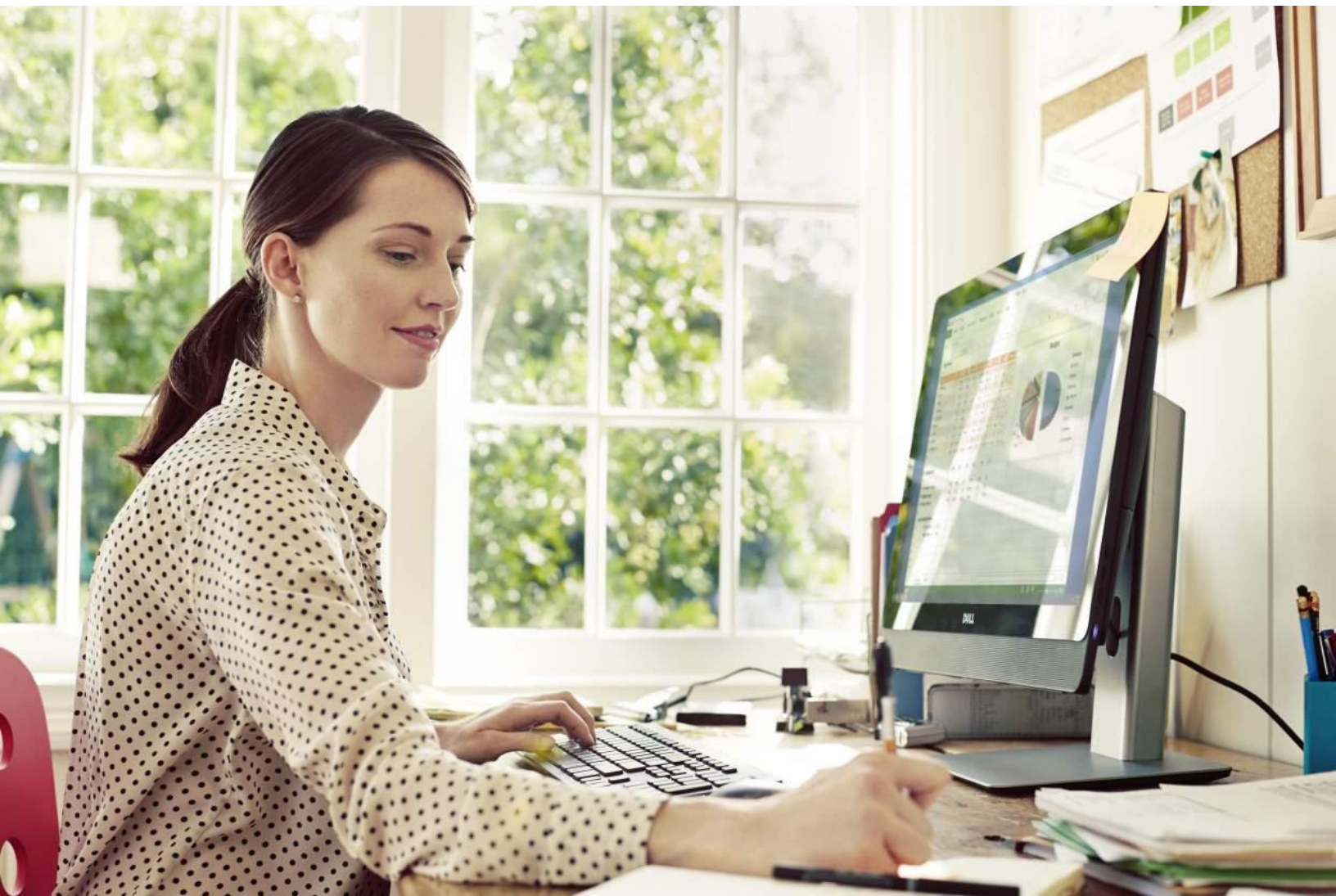


# Client Solutions Playbook

Channel Version  
Q3 FY16



# Commercial Value Proposition





# Security

Dell's **industry-leading endpoint security solutions protect your data wherever it goes** while seamlessly integrating into your IT processes and enabling end users to work the way they want, on the devices they want.

It is the industry's **most comprehensive data protection for securing end user data on any device**, external media, and in the cloud. Our solutions enable end users to work with the tools they know and love without interruption or compromised performance, and **only Dell gives IT an easy way to deploy and centrally manage all their endpoint security** and compliance needs without disrupting their existing processes, such as patch management.














Dell Data Protection | Encryption solutions flexibly scale to fit your needs, including the highest level of protection (FIPS 140-2, level 3), and **Dell offers the broadest range of fully-integrated advanced authentication solutions**, such as FIPS-certified smart card and fingerprint readers, for stronger protection against unauthorized users. Finally, **only Dell provides proactive malware protection on every commercial PC** to stop even the most advanced attacks in their tracks.

Learn more at [Dell.com/DataProtection](https://Dell.com/DataProtection)



## Competitive comparison

Lenovo lacks many end-point security options and offers lower FIPS certification.

Encryption	Authentication	Malware Prevention
 Data- or full-disk encryption  Removable media, storage protection  Full-disk encryption or storage encryption  Pre-set compliance templates & policies  FIPS 140-2 level 3	 Secure software credential processing  FIPS-certified smart card readers  Pre-Boot Authentication (and single sign-on)  Fully-integrated multi-factor authentication	 Includes on every commercial PC  Virtual machine technology  Protection against zero-day threats  Traditional AV/AS

## Dell Data Protection benefits

### Comprehensive protection

- Protect data on any device, external media and in the cloud with flexible options, including the **highest level of FIPS 140-2**.
- Enable Dell's broad range of fully-integrated advanced authentication options, including fingerprint, smart card and **contactless smart card readers and unique hardware credential processing**.
- Automatically detect and block all malicious behavior – even zero-day attacks.

### Simplified management

- Easily implement encryption, authentication, and malware prevention — right out of the box.
- Remotely manage encryption and authentication policies with a single console designed to work seamlessly with existing IT processes.
- Save IT countless hours of remediation work by proactively preventing malware attacks.

### Easier compliance

- Deploy, enforce and audit compliance policies with pre-set compliance templates.

### End user productivity

- Empower employees to securely work anytime, anywhere, on any device without disruption.
- Enable employees to log in once without having to memorize multiple passwords.
- Protect employees from targeted attacks without interrupting workflow.

Dell's security expertise is much broader than with Dell Securework leading Managed Security Services on Gartner Magic Quadrant, Dell Sonicwall for networking and Dell Quest on identity management.

- Network Security Next-Generation
- Secure Remote Access
- Endpoint Security
- Compliance & IT Governance
- Security Services
- Cloud Security

Learn more at [Dell.com/DataProtection](https://Dell.com/DataProtection)

# Manageability

Dell offers **the world's most manageable client devices** by building unique systems management capabilities into our Latitude, OptiPlex Dell Precision and Dell Venue Pro 11 systems combined with Dell Client Command Suite, free automation tools that help automate remote system management.

**Dell goes above and beyond with:**

## Faster Deployments

Less steps with simple and easy-to-use, free automation tools with Microsoft Systems Center 2012 integration

## Best integration of monitoring of Power, Inventory, and Warranty

Dell Power Manager, inventory tracking for hardware & software, warranty reporting

## Most Generations of Updates













Full support over the depreciated life-time. Ex. Dell Driver CABs are supported for five generations of Dell Latitude – longer than any other hardware provider

## Competitive comparison

**Lenovo relies on third party solutions.**

Slower CAB files deployment, fewer BIOS settings and template options, basic support of out-of-band system management or lack of DASH certification are just a few gaps between Dell and Lenovo on the manageability side.

**Lenovo gaps visual comparison.**

Configure & Deploy	Monitor	Update
 Flexible BIOS configuration with reusable templates for automated deployment	 Best in class integration with SCCM and KACE	 One to many updates of out of band systems with vPro extensions
 Pre-OS BIOS and TPM configuration	 Remote system health monitoring	 Patch management of offline systems
 Single CAB file OS Deployment	 Deep inventory information for improved manageability	 Easy to use tool for automating updates
 Published schedules for image refresh planning	 Remote "out of band" battery management	 DASH "Certified"

Sources:

1) Principled Technologies report: Dell client management tools

2) Based on IDC costs measurements per IT maturity and Gartner IT accounting model, we have an 85% confidence level that market average cost is \$40+ per client per month.



## Exclusive Intel vPro capabilities

Out-of-band remote manageability with four unique functions:

- Update one time for multiple systems (our 1-to-many advantage)
- Remote BIOS management
- Remote hard drive wipe
- Remotely adjust power settings

Discover more about Dell Client Command suite at [dell.com/command](http://dell.com/command)

**HP offers proprietary solutions or basic third party support.**

While HP offers more than Lenovo, the choice between expensive consulting based solutions or basic third party support limits TCO saving opportunities. Dell offers also both benefits, but invests into Microsoft SCCM extensions and LanDesk support.

# Deploy



- 77% fewer steps to import drivers versus competition<sup>1</sup>; about 30 min work time.
- 55% fewer steps to import WinPE drivers<sup>1</sup>.
- 46% fewer steps to task sequences<sup>1</sup>.

Dell Configuration and Deployment services for fast and efficient imaging delivered directly to the end user.

Dell Services integrated with Dell Partner network offer scalability and proximity benefits.

# Monitor



Easier access to warranty and service tag information, on system or online with Dell Online tools.

Exclusive Dell vPro extensions provide more health and status information. The typical amount of PC downtime experienced by the user is reduced by 37% with Intel vPro.

Track and dispatch warranty parts directly and save time with Dell ProSupport options.

# Update



Update BIOS in 13 seconds with 75% less time versus Lenovo.

The only 1 to many out-of-band management capability in the industry.

DASH certified systems: Dell now up to 89 systems; HP has 49; Lenovo doesn't have any.

Dell provides updates for up to 5 generations of commercial PCs, HP and Lenovo do not.

Dell is the first OEM to offer a PowerShell Provider for BIOS management

# Reliability

Dell offers outstanding reliability, with products that are designed, tested and engineered to deliver a flawless experience every time. Dell is the only Tier 1 vendor offering end-point devices from the boardroom to the battlefield and everything in between. Dell's rugged learnings bolster the rest of our business client portfolio.

## Materials and components

Dell selects premium materials and components and puts them through the test to help ensure highest PC reliability.

Dell is the only vendor using massively Corning Gorilla Glass across commercial laptops and workstations. It has 10x the scratch resistance, it is further tested against bending and has the brightest viewing experience.

While marketing carbon fiber is common amongst PC vendor, Dell does not simply blend a few percent of carbon fiber dust into plastic. Dell uses woven-carbon fiber with resin reinforcement in order to strengthen our laptops in all directions.

All components and systems go through rigorous reliability testing, also known as highly accelerated life tests.



## Lenovo on reliability

Lenovo is telling their customers that they have better reliability and durability using a 2011 TBR study as a proof point. Dell commissioned TBR 2013 study shows a different story.

Lenovo misleads audience:

- 1) Lenovo uses data from markets where they primarily sell high-end systems in comparison to Dell's mix of high and low-end systems.
- 2) Lenovo is using an unaccredited TBR report from 2011 and attempt to mislead customers with statistically insignificant results.

Dell commissioned TBR in October 2013 and found out that the product mix high-end versus low-end sold in the region explains repair rates.

## Latitude 7000 series

the world's most durable ultrabook<sup>®</sup>



Lenovo ThinkPad X1 Carbon



Dell Latitude 7000

## Competitive testing

Since August 2011 and Dell Latitude tests performed by Principled Technologies, Dell Latitude have outperformed their competitive counterpart on durability and other specifications.

Dell Latitude 5000 series have been tested early this year and once more demonstrated better durability and more battery life; full results being available on [www.principledtechnologies.com](http://www.principledtechnologies.com).

MIL-STD-810G testing is done with more rigor than most of our competitors. Dell is doing more tests, using 3rd Party testing facilities and publishing the testing results with detailed procedure and pass criteria's.

Being transparent about the MIL-STD-810G testing comes from our rugged product development heritage. Law enforcement, military and construction customers are very knowledgeable about durability testing and require details.

## Engineering durability

Dell is one of the few manufacturers creating fully-rugged and Department of Defense ready laptops. Years of engineering experience in order to survive the toughest field conditions have not only strengthened our rugged portfolio.

Dell leverages expertise with materials and manufacturing processes in order to improve other lines of business. For instance cooling systems that survive deserts heat or simply hinges and hard drive protection.



Dell has fresh data from 2015 to share on the matter.

## "Dell notebooks are the most reliable according to Customer Satisfaction Research"

TBR, January 2015

Dell outsourced the competition for the 3rd consecutive quarter, finishing 1st in all 22 satisfaction attributes.

"Product reliability and performance are the two biggest drivers of customer loyalty to a product. According to TBR's CSAT study, Dell maintained a leading position among enterprise notebook vendors and achieved a higher satisfaction score than the average of the enterprise notebook market. Similarly, Dell outperformed other notebook vendors in performance. Dell maintained a leading position in ongoing hardware quality and performance for the first three quarters of 2014.

TBR believes Dell's commitment to sourcing reliable and thoroughly tested components for its notebooks, from entry-level to high-end devices, is supporting its consistently high customer satisfaction scores."

Ask your us for the full whitepaper!





# Dell Client Portfolio

## More focused and versatile

Dell may not offer as many models as select competitors, we focus on creating the most relevant ones based on customer feedback and research.

But Dell offers products that other do not. We have a stronger offering in thin clients, including a virus immune Thin OS or mobile thin client dongle that competition does not offer and that plays nicely into digital signage or Internet of Things strategies. Dell also offers a fully rugged product portfolio that is just as secure and manageable as core clients for field technicians, delivery personnel and in vehicle docked devices.

An unparalleled range of devices to meet business needs from office to the field and supporting automation.

## Worldwide consistent service

Most business work internationally or have multiple subsidiaries within large countries. Dell can deliver a consistent service in more countries, as much of the configuration happens at factory or in hubs.

Dell OEM department can help support our PC integration in a wide range of solutions, such as high-capacity printing installation for press, medical scanners, airport check-in counters and more.

Deployment can be adjusted and deliver directly to the end-user desk and take care of data migration and even training.

Old systems can be recycled or resold in order to help support eco-responsible computing.

Dell Financial Services can help run the whole PC lifecycle service as a operating expense client as a service offer.

## Best-in-class support

The TBR recognized Dell ProSupport has evolved and now available as ProSupport Plus, which is even more differentiated from a competitive perspective.

This advanced support leverages Internet of Things and Big Data approaches for proactive support and predictive support in a highly automated way.

Dell has years of advance in automated support and it provides high satisfaction to the already most reliable PCs in the industry.



Features	ProSupport Plus	HP Elite	Lenovo
Hardware support	✓	✓	✓
Third party collaborate software support	✓		✓
Priority access to expert	✓	✓	✓
Case submission via API	✓		
Proactive automated support	✓		
Predictive automated support	✓		
Accidental damage repair	✓	Optional	Optional
Retain your hard drive	✓	Optional	Optional
Technical account manager with monthly reporting	✓	Optional	

# Dell Innovation

## Dell CES awards in 2015

CES awards are great talking points, when confronted to customers suspicious about Dell innovation potential. The press and reviewers have made multiple competitive comparisons that speak best by themselves. If your customers brings Apple iPad or MacBook Air into the conversation, point them to these articles and awards!

- XPS 13, 2015 CES Editors' Choice award - Reviewed.com (a division of USA Today)
- XPS 13, Top Tech of CES 2015 award - Digital Trends
- XPS 13, Top Pick CES 2015: Laptop - LAPTOP
- XPS 13, Most Outstanding of CES 2015 award - Notebooks.com
- XPS 13, CES 2015 Excellence Award - GottaBeMobile
- XPS 13, CES Innovation Award Honoree - CEA
- XPS 13, Best Laptop CES 2015 award - The Verge
- XPS 13, Best Laptops of CES 2015 award - MSN
- XPS 13, Best Products of CES 2015 - Pocket-lint
- XPS 13, Best Upcoming Laptops in 2015 - Tech Times
- XPS 13, Top Picks of CES 2015 - Windows Central
- XPS 13, Best of CES 2015 award: Best Laptop - Tech Radar
- XPS 15, Best Laptops of CES 2015 award - MSN
- Venue 8 7000 Series, Best Gadget of CES 2015 - Venture Beat
- Venue 8 7000 Series, Best Tablet of CES - Boston Globe
- Venue 8 7000 Series, The Very Best of CES 2015 - BGR
- Venue 8 7000 Series, Best of CES award - Engadget
- Venue 8 7000 Series, Best of CES award - Mashable
- Venue 8 7000 Series, Top Pick CES 2015: Tablet - LAPTOP
- Venue 8 7000 Series, Best of CES award - PC Mag
- Venue 8 7000 Series, CES 2015 Excellence Award - GottaBeMobile
- Venue 8 7000 Series, 2015 CES Innovation Award Best of Innovation Honoree - CEA
- Venue 8 7000 Series, Best Tablet CES 2015 award - The Verge
- Alienware 15, CES 2015 Excellence Award - Notebooks.com
- Alienware Area-51, CES Innovation Award Honoree - CEA
- Inspiron 15 5000 Series laptop, CES Innovation Award Honoree - CEA
- Inspiron 23 AIO, Best of CES 2015 award: Best All-in-One PC - Tech Radar
- Latitude Education 13" Laptop and Mobile Cart, CES Innovation Award Honoree - CEA
- UltraSharp 34 Monitor - U3415W (Curved), CES Innovation Award Honoree - CEA



## Dell Wireless Dock was the first WiGig based docking solution



## Dell innovation in Security

Did you know that Dell on top of having made many acquisitions (Credant, SecureWorks, SonicWALL, Quest) to build its security capabilities has innovated on security?

- First to offer self-encrypted drive on commercial PCs
- First to offer smart card readers on commercial PCs
- First to offer contactless smart card readers
- First to offer FIPS fingerprint readers
- First to offer a chip for processing credentials out of the memory with Dell ControlVault
- First to offer a FIPS TPM
- First to offer browser sandboxing on commercial PCs
- First to offer file based encryption on commercial PCs
- First with one-to-many out-of-band BIOS management

# Dell Advantage

Unlike our competitors, Dell has:

- No proprietary technology deliberately designed to lock in customers
- No closed ecosystems that intentionally block out competitors
- No complex and costly monolithic systems and management stacks
- No constraints on scalability that force customers to rip-and-replace
- No vested interest in costly, legacy platforms (e.g. mainframes)
- No siloed views or hidden agenda to own customers through strength in one area

## End-to-end solutions

Dell offers standard-based, open, modular, flexible solution portfolio that scales. Lenovo cannot offer the same breath and even HP struggles matching our offering (ie: security).

Superior end-to-end solutions can represent significant savings for customers. For instance, Dell Smart Selections with Dell Configuration and Deployment services ordered over a business-to-business connection and a Dell Financial Services contract can enable a workforce at less than the price of a coffee per day and per user. A very small amount compared to employees salary and savings that HP and Lenovo will struggle to replicate.

## The security example

Without a doubt this is the area where Dell differentiates the most. Dell Data Protection suite and advanced hardware on select Latitude laptops deliver the most secure laptops.

Mobility is one of the top priorities for CIOs who are looking at accelerating cloud and mobility to enable their businesses. Yet there is a challenge; mobility puts more data on the road and threatens the infrastructure as users authenticate remotely using multiple applications and devices.

Secure mobility cannot be approached only with the client in mind. Security needs to be holistic and cover data protection on the drives, as well as, when it is flying on the network. Malware threats need to be addressed on servers, emails, clients and malicious web-based code needs to be isolated from other applications. Services and research for proactive threat detection as well as pattern detection are needed in order to identify the latest threats, phishing and social engineering.

## Only Dell has

Dell Data Protection suite that offers best-in-class data encryption from the drive into the cloud as well as zero-day sandboxing technology.

Dell Quest Identity and Access Management that supports strong multi-factor authentication and single sign-on solutions from the device into the back-end.

Dell SecureWorks leader on the Gartner Magic Quadrant for managed security service provider (MSSP).

Dell SonicWALL offers SSL VPN remote access, deep packet monitoring and zero-day protection. Benefit from GRID a 1 million sensor network that helps detect threats as early as possible.

What makes Dell Security different?

- Connected end-to-end: closes gaps, reduces complexity and mitigates risk
- Shared, context-aware intelligence: enables proactive protection everywhere
- Built for humans: security that stands in the way of threats, not people and productivity

Discover more on Dell network, data, endpoint, identity and access management solutions as well as security services on [dell.com/security](http://dell.com/security)



## Other Dell benefits

### Single point of contact

- Dell let's you choose the way you want to get your service. You might prefer to work with a local partner who knows your infrastructure or have your experts work directly with Dell.
- Customers or partners get a single commercial point of contact who acts as an entry point into Dell vast capabilities.

### Professional support

- 24x7 direct access to highly trained experts who provide enterprise-level, tech-to-tech support
- Remote and on-site support with four and eight hour parts & labor response options
- Incident-based third-party software assistance for data center and end-user applications, OS, and firmware troubleshooting
- Emergency parts and labor dispatch, in parallel with troubleshooting, for issues you identify as severity level 1
- Access to secure online management of parts, convenient for servicing your own hardware

### Dell Premier

- Simplify eBusiness. Dell Premier provides your organization with a customized, secure online toolset for purchasing, reporting and product support, all backed by a dedicated account team.
- PremierConnect is B2B procurement made simple. Our global end-to-end electronic procurement process that integrates with your enterprise resource planning (ERP)/procurement system from catalog through payment
- Global Portal is your own secure, personalized global purchasing and support site, which you can quickly and easily customize to suit your precise requirements, saving your organization time and money throughout all phases of IT product ownership.



# Return on Investment

## Dell Client Solutions to help save time and money

Dell and Intel commissioned Forrester Consulting to develop the **Dell Client Solution Cost Estimator** that helps estimate Dell Client Solutions cost saving opportunities. Forrester interviewed Dell customers and assessed Dell offers in order to compare them to market research established costs for similar processes.

Build trust with customers talking about IT business processes, demonstrate how moving to Dell can pay for the cost of change, migrate your retention customer to high-satisfaction services that will retain them with Dell.

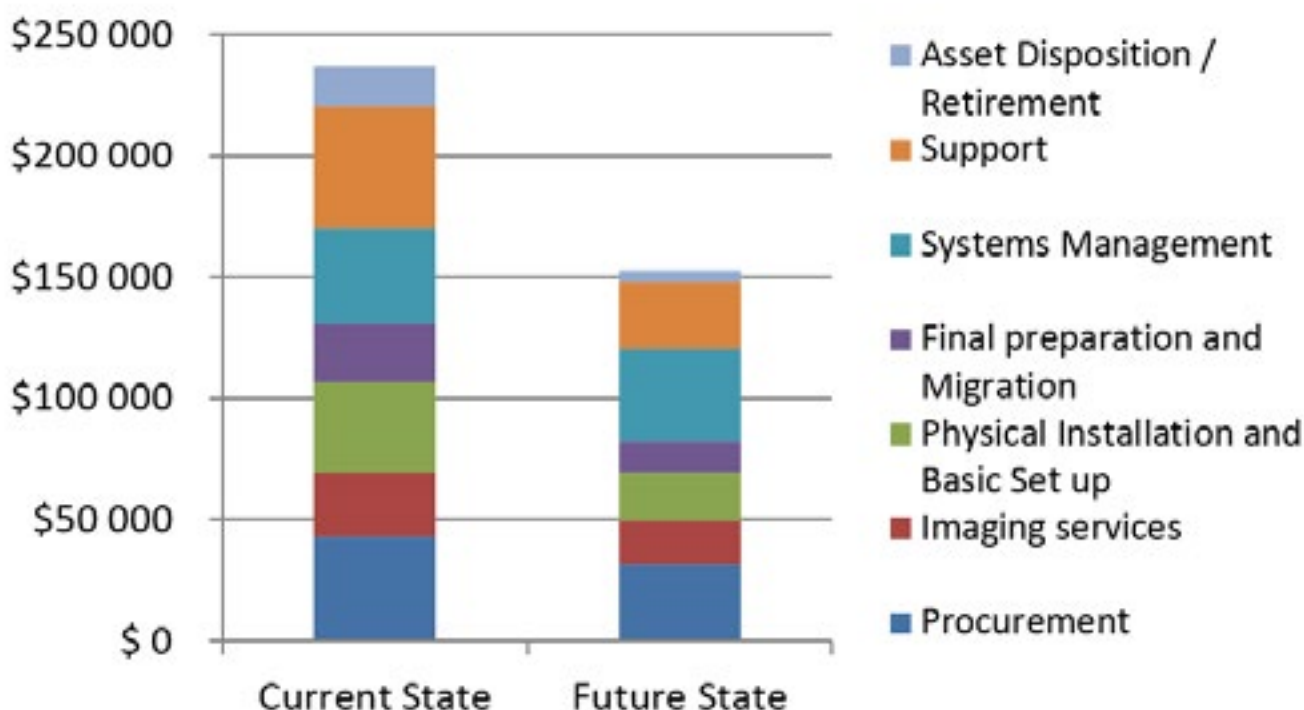
- Dell Configuration service have a 95%+ satisfaction and 90% retention
- Dell Client Solutions can offer up to 25% ROI on PC lifecycle management
- 79% of buying decision makers have economic or business criteria's



Below annual service costs are estimated for a US based business with 1000 desktops and 1000 laptops equipped with docking stations and external displays.

Savings moving to Dell are potentially up to two IT headcounts who can refocus on added value projects.

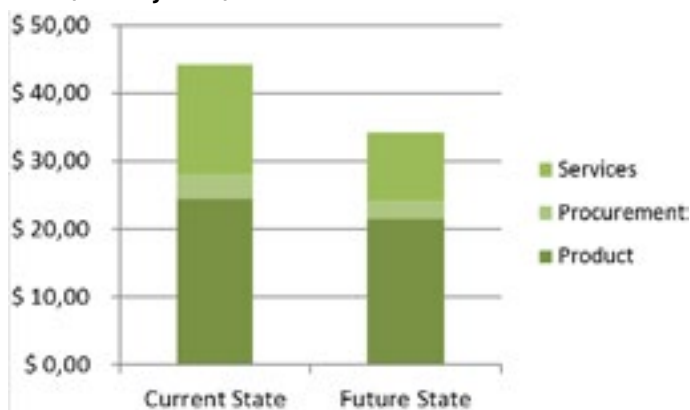
### Annual service costs (risk-adjusted)



## Dell Client Solutions for Channel Partners

Dell Configuration and Deployment Services can offer fantastic business agility for Dell Channel Partners. These services can serve as workforce on demand and help mitigate the challenges of shaping demand towards partners resources. It helps them grow over time and focus resources on the most value added tasks while keeping them in control of the project management.

### Average monthly costs per end-user device including hardware (risk-adjusted)



## Dell Clients as a Service

Dell can offer laptops, desktops and tablets as a service with Dell Configuration & Deployment Services, Dell ProSupport Plus and Dell Financial Services.

If IT is interested in having the departments acquiring their PCs directly, Dell can setup efficient processes that enable users to order and get the PCs delivered directly to them fully setup.

The client as a service approach offers these essential productivity tools starting at less than a \$1 per day. Meaning your Ultrabook, serviced and deployed costs you probably less than your morning coffee.

Currently Shipping

# Mobile Productivity



# Dell commercial mobile portfolio

## Currently shipping portfolio

### Latitude (current gen)

Latitude 12/14 7000 Series (E7x50)

Latitude 12/14/15 5000 Series (E5x50)

Venue 11 Pro 7000

Latitude 14/15 3000 Series (3x50)

### Precision (current-gen)

Precision M6800 Mobile Workstation

Precision M4800 Mobile Workstation

Precision M3800 Mobile Workstation

Precision M2800 Mobile Workstation

### XPS (current-gen)

XPS 13

XPS 15

### Vostro (current gen)

Vostro 14 3000 Series (3445/3446/3449)

Vostro 15 3000 Series (3546/3549)

Vostro 14 3000 Series (3458)

Vostro 15 3000 Series (3558)



# Latitude



# Latitude: the world's most secure, manageable, and reliable business-class laptops

Services + Products + Software + Accessories



## 3000 Series

Essential mobile performance for small and growing businesses



## 5000 Series

Premium experience meets business-class workhorse



## 7000 Series

World's most secure business-class Ultrabook™ for mobility at its finest



## 7000 Series 2-in-1

World's most secure 2-in-1 delivering a no-compromise experience

Education and Entry

Mainstream

Premium

most **secure** | most **manageable** | most **reliable**  
backed by Dell ProSupport™ Plus

## Awards and recognition

- Laptopmag ranks Dell laptops #1 in innovation, value, & selection
- #1 seller of the 12-inch Ultrabook™, IDC
- PC Pro Best Commercial Ultrabook
- Latitude 14 7000 "Designed to keep you productive." – PCMag
- Latitude 13 Series 2-in-1 "Tailor made for business use" - PCMag



"A dream machine for business users"

–PCWorld



"Sets the bar for laptops"  
–Enderle Group

# Dell Latitude

## Empowering your workforce

Keep your mobile workforce running smoothly with new Dell Latitude laptops, Ultrabook™ and tablets. With designs that range from small and lightweight to real-world rugged, each new Latitude E-Family laptop can help keep your employees connected and your data protected while providing your IT staff with high levels of security, manageability and reliability.

## Confident security

Data is one of your most valuable assets. Latitude helps you secure it through a suite of data protection, user authentication and malware-prevention technologies.

## Efficient manageability

The new Latitude lineup includes the world's most manageable laptops that feature the latest Intel® vPro™ systems management tools and Dell's unique management extensions.

## Outstanding reliability

Latitude laptops are built to last. With strong construction materials, Latitude systems can stand up to the daily rigors of business on the move.

Dell's new Latitude is our most manageable, secure, environmentally friendly and technologically advanced ever. Combined with integrated solutions and services, our latest lineup offers better performance, higher capacity, and easier manageability.



## Dell has it. HP and Lenovo do not.

### Most Secure

#### Enabling you to give more flexible end user access with confidence

A single solution to protect data from the smartphone ..... to the cloud, across systems and removable data.

Dell Latitude	HP EliteBook <sup>3</sup>	Lenovo ThinkPad <sup>3</sup>
✓	✗	✗

U.S. Federal Information Processing Standard ..... (FIPS) 140-2 Level III certification for data encryption

✓	✗	✗
---	---	---

Dell ControlVault™ and crypto accelerator for strong .... authentication processing and encryption

✓	✗	✗
---	---	---

### Most Manageable

#### Deploy, image, and manage faster than HP with management automation only Dell can deliver

Out-of-band one-to-many BIOS management .....

✓	✗	✗
---	---	---

Out-of-band remote battery management .....

✓	✗	✗
---	---	---

Out-of-band remote hard drive wipe .....

✓	✗	✗
---	---	---

Faster deployment with Dell driver package .....

✓	✗	✗
---	---	---

### More Reliable

#### With business-rugged features that help ensure your users stay productive

Hard drive isolation for reliability and data protection .....

✓	✗	✓
---	---	---

Fast Response Free Fall Sensor<sup>4</sup> .....

✓	✗	!
---	---	---

Compatible with 5 generations of docking and accessories .....

✓	✗	✗
---	---	---

WiGig technology and wireless docking options .....

✓	✗	✗
---	---	---

Dell Latitude 7000 and 5000 series are subject to more MIL-STD-810G testing<sup>1</sup>

✓	✗	✗
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Dell Latitude laptops are the world's **most manageable** vPro-enabled laptops and take **77% fewer** steps to import drivers, **46% fewer** steps to create task sequences, and **55% fewer** steps to import vital WinPE drivers than Lenovo or HP.<sup>2</sup>

Dell Latitude laptops are **more secure** with the highest level of US government computer security standards (FIPS 140-2 Level III).

Dell Latitude 7000 **are the most durable commercial Ultrabooks**. They are subject to more MIL-STD-810G tests than HP or Lenovo.<sup>1</sup>

**Industry leading durability**; Latitude 14 & 15 5000 series are subjected to more MIL-STD 810G tests than any other fully-featured commercial laptops.<sup>1</sup>

1. Dell Latitude 7000, 6000 & 5000 series are MIL-STD-810G tested 16 different methods, IP5x tested for Ingress Protection and additional internal testing for spills, resistances and long life testing of mechanical parts. Please ask your Sales for the Latitude Environmental Testing summary or download the document at <http://www.dell.com/latitude> for full test details.

2. Managing Clients with Dell Client Integration Pack 3.0 and Microsoft System Center Configuration Manager 2012; a Principled Technologies Report commissioned by Dell; September 2012 – downloadable from: <http://www.principledtechnologies.com>

3. Based on Lenovo ThinkPad published specification information available at <http://www.lenovo.com/products/us/laptop/thinkpad/t-series> and based on worldwide HP EliteBook published specification information available at <http://h18000.www1.hp.com/products/quickspecs/productbulletin.html>

4. Dell Free Fall Sensor is faster than Lenovo's technology but both offer similar functionalities.



# Latitude 7000 Series (E7x50)

Superior performance packed into a sleek and incredibly secure Ultrabook™ for mobility at its finest.



Key features	Why it matters
Ultrabook™ thin and light	Thinner than the previous generation, starting at just 2.7 lbs (1.25kg) with a 3-cell battery.
Built with premium materials	Designed with a soft-touch paint finish, woven carbon fiber (on touch models) on the exterior, and a Tri-metal™ chassis magnesium alloy underneath the surface, the Latitude 7000 Series materials not only make it beautiful but reliable.
Optional touch display	Dell touch-enabled displays offer optimal viewing experience, touch sensitivity, brightness and durability with edge-to-edge Corning® Gorilla® Glass NBT™.
Best-in-class reliability	Subjected to extensive MIL-STD 810G testing to ensure durability under extreme conditions. Additionally, a spill-proof keyboard protects against liquid damage while the premium Corning® Gorilla® Glass touch display offers 10x scratch resistance. And, choose optional enterprise-level Dell ProSupport Plus for 24/7 support to minimize downtime.
All-day battery life	Power through your work day with up to 11 hours 51 mins battery life (with the optional 4-cell battery), and with the optional Dell Power Companion, get up to 22 hours and 7 minutes (with 4-cell battery, 500GB Hybrid HDD).
Flexible docking options	Compatible with the E-family docking station or choose the Dell Wireless Dock, for seamless high-speed wireless docking through Intel® WiGig technology powering up to two external displays, keyboard, mouse, audio and other peripherals for a desktop free of wires.

## Recommended Accessories

### Dell E-Port Replicator

Achieve full desktop functionality with one simple connection

### Dell Portable Power Companion

Charge multiple devices simultaneously, and extend battery life while on-the-go

### Dell Mini DisplayPort to VGA Adapter

Display mobile content on large screens and projectors

### Dell UltraSharp 24 Monitor – U2414H

View in vivid Full HD with the world's thinnest border for nearly seamless viewing across multiple screens

### Dell Wireless Keyboard & Mouse – KM714

Create in a clutter-free workspace clear of wires and cables

### Dell Premier Briefcase

Provides the convenience and reliability of a mobile office with a sleek, travel-friendly design





# Dell Latitude 12 7000

Thinner than ever: The Latitude 12 has a starting weight of just 2.7 lb (1.25kg) .

Elite and durable design: With soft- touch paint finish and woven carbon fiber (on touch models) on the exterior, the Latitude 7000 series is designed to survive challenging physical environments and MIL-STD 810G testing.

Control at your fingertips: Dell touch-enabled displays offer optimal viewing experience, touch sensitivity, brightness and durability with edge-to-edge Corning® Gorilla® Glass NBT™



Lenovo X250		HP EliteBook Folio 1020 G2		HP EliteBook Folio 1020 G2 SE		HP EliteBook 820 G2	
							
5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ M	5th generation Intel® Core™ M	5th generation Intel® Core™ M	5th generation Intel® Core™ i3, i5 or i7	5th generation Intel® Core™ i3, i5 or i7
Microsoft® Windows 7 & 8.1	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu
Intel HD 5500 or nVidia GeForce	Graphics	Intel HD Graphics 5500	Intel HD 5300	Intel HD 5300	Intel HD 5300	Intel HD Graphics 5500	Intel HD Graphics 5500
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 8 GB DDR3L memory (1 DIMM)	Up to 8 GB DDR3L memory (1 DIMM)	Up to 8 GB DDR3L memory (1 DIMM)	Up to 8 GB DDR3L memory (1 DIMM)	Up to 16 GB DDR3L memory (1 DIMM)	Up to 16 GB DDR3L memory (1 DIMM)
12.5" HD or Full HD LED-backlit	Display	12.5" HD and Full HD panel options	12.5" Full HD or QHD (2560x1440)	12.5" QHD (2560x1440)	12.5" QHD (2560x1440)	12.5" HD and Full HD panel options	12.5" HD and Full HD panel options
Touch with Full HD IPS panel	Touch option	Touch with Full HD panel	Optional touch with QHD panel	N.A.	N.A.	Touch with Full HD panel	Touch with Full HD panel
N.A.	Hard drive option	Up to 1TB HDD	N.A.	N.A.	N.A.	Up to 500GB HDD	Up to 500GB HDD
Up to 512GB SSD	SSD option	Up to 512GB SSD	Up to 512GB SSD	Up to 512GB SSD	Up to 512GB SSD	Up to 512GB SSD	Up to 512GB SSD
None	Optical drive	None	None	None	None	None	None
Backlit	Keyboard	Backlit, single pointing	Backlit	Backlit	Backlit	Backlit, single pointing	Backlit, single pointing
Up to 9 hours with 4-cell (52Whr)	Battery life	Up to 5.2 hours with 3-cell (23Whr) optional 3 or 6 cell external batteries	Up to 15 hours with 3-cell (46Whr)	Up to 15 hours with 3-cell (46Whr)	Up to 15 hours with 3-cell (46Whr)	Up to 15 hours with 3-cell (46Whr)	Up to 15 hours with 3-cell (46Whr)
3x USB 3.0, RJ-45	Input / output	2x USB 3.0, SD	2x USB 3.0, micro SD	2x USB 3.0, micro SD	2x USB 3.0, micro SD	3x USB 3.0, SD, RJ-45	3x USB 3.0, SD, RJ-45
1x mini DisplayPort, 1x HDMI	Video ports	1x mini DisplayPort, 1x VGA	1x HDMI	1x HDMI	1x HDMI	1x DisplayPort, 1x VGA	1x DisplayPort, 1x VGA
WLAN - 3x3 or Intel	Wireless LAN	WLAN	WLAN	WLAN	WLAN	WLAN	WLAN
Bluetooth 4.0, WiGig option, NFC	Wireless connectivity	Bluetooth	Bluetooth	Bluetooth	Bluetooth	Bluetooth	Bluetooth
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	N.A.	N.A.	N.A.	Optional 4G mobile broadband	Optional 4G mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Kensington lock slot	Kensington lock slot	Kensington lock slot	Kensington lock slot
TPM, Dell ControlVault™	Security chips	TPM	TPM	TPM	TPM	TPM	TPM
Fingerprint, smart card, contactless smart card reader options	Authentication factors	Fingerprint reader, smart card reader	Fingerprint reader	Fingerprint reader	Fingerprint reader	Optional fingerprint reader, smart card reader	Optional fingerprint reader, smart card reader
Dell Data Protection   Encryption	Security software	No encryption software	Full volume encryption	Full volume encryption	Full volume encryption	Full volume encryption	Full volume encryption
Starting at 1.252 kg / 2.76 lbs	Weight	Starting at 1.3 kg / 2.9 lbs	Starting at 1.21 kg / 2.6 lbs	Starting at 1.03 kg / 2.27 lbs	Starting at 1.03 kg / 2.27 lbs	Starting at 1.3 kg / 2.9 lbs	Starting at 1.3 kg / 2.9 lbs
310.5 x 211 x 19.4 mm	Size (metric)	305.5 x 208.5 x 20.3 mm	310 x 210 x 15.7 mm	310 x 210 x 15.7 mm	310 x 210 x 15.7 mm	310 x 215 x 21 mm	310 x 215 x 21 mm
12.2 x 8.3 x 0.76 in	Size (US)	12 x 8.21 x 0.80 in	12.2 x 8.3 x 0.62 in	12.2 x 8.3 x 0.62 in	12.2 x 8.3 x 0.62 in	12.2 x 8.48 x 0.83 in	12.2 x 8.48 x 0.83 in
January 2015	Launch date	January 2015	January 2015	January 2015	January 2015	January 2015	January 2015

### Dell Latitude 12 7000 unique features:

Two slots and up to 16GB is only available on Dell Latitude E7250, which has often more configuration flexibility.

Dell Latitude E7250 offers more security features, in particular Dell ControlVault chip and contactless smart card reader.

Dell Latitude E7250 integrated 3x3 antenna for high quality wireless LAN connectivity or Dell WiGig docking connectivity.



### Why Dell Latitude 12 7000:

- Better wireless connectivity
- Native Ethernet port
- More memory expansion
- More authentication factors
- Better security solution

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# Dell Latitude 14 7000

Thinner than ever: The Latitude 14 has a starting weight of just 3.4 lb (1.54kg) .

Elite and durable design: With soft- touch paint finish and woven carbon fiber (on touch models) on the exterior, the Latitude 7000 series is designed to survive challenging physical environments and MIL-STD 810G testing.

Control at your fingertips: Dell touch-enabled displays offer optimal viewing experience, touch sensitivity, brightness and durability with edge-to-edge Corning® Gorilla® Glass NBT™



Lenovo X1 Carbon	Lenovo T450S	HP EliteBook 1040 G2	HP EliteBook 840 G2
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5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ i5 or i7	5th Gen Intel® Core™ i3,i5,i7; vPro
Microsoft® Windows 7 & 8.1	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Linux	Win7, 8.1, Linux
Intel HD 5500 or nVidia GeForce	Graphics	Intel HD Graphics 5500	Intel HD 5500 or nVidia GeForce	Intel HD Graphics 5500	Intel HD Graphics 5500 or AMD Radeon
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 8 GB DDR3L memory (2 DIMM)	Up to 12 GB DDR3L memory (1 DIMM)	Up to 8 GB DDR3L memory (1 DIMM)	Up to 16GB DDR3L 1600MHz
14" HD or Full HD LED-backlit	Display	14" WQHD (2560x1440) or Full HD	14" HD+ (1600x900) or Full HD	14" HD+ (1600x900) or Full HD	14" HD, 14" HD+ or 14" FHD
Optional touch with Full HD IPS panel	Touch option	Touch with WQHD IPS panel	Optional touch with Full HD panel	N.A.	Optional touch with Full HD panel
Up to 500GB SATA 5400 rpm HDD	Hard drive option	N.A.	Up to 1TB SATA 5400 rpm HDD	N.A.	Up to 1TB SATA 5400 rpm HDD
Up to 512GB SSD	SSD option	Up to 512GB SSD	Up to 512GB SSD	Up to 512GB SSD	Up to 256GB SSD & 256GB M2 SSD
None	Optical drive	None	None	None	None
Backlit	Keyboard	Backlit	Backlit	Backlit	Backlit
Up to 11.8 hours with 4-cell	Battery life	Up to 10.8 hours battery life	Up to 17 hours battery life with 6-cell	Information not available	Information not available
3x USB 3.0, SD/MMC, RJ-45	Input / output	2x USB 3.0	3x USB 3.0, RJ-45	2x USB 3.0, mSD, RJ-45 with dongle	3x USB 3.0, SD, RJ-45
1x mini DisplayPort, 1x HDMI	Video ports	1x mini DisplayPort, 1x HDMI	1x mini DisplayPort, 1x VGA	1x DisplayPort	1x DisplayPort, 1x VGA
WLAN - 3x3 or Intel	Wireless LAN	Intel 2x2 WLAN	WLAN	WLAN	WLAN
Bluetooth 4.0, WiGig option, NFC	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0, NFC	Bluetooth 4.0, NFC
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G LTE mobile broadband	Optional 4G LTE mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Information not available	Kensington lock slot
TPM, Dell ControlVault™	Security chips	TPM	TPM	TPM	TPM
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader
Dell Data Protection   Encryption	Security software	No encryption software	No encryption software	Full volume encryption	Dell Data Protection   Encryption
Starting at 1.556 kg / 3.43 lbs	Weight	Starting at 1.306 kg / 2.88 lbs	Starting at 1.48 kg / 3.26 lbs	Starting at 1.51 kg / 3.32 lbs	Starting at 1.55 kg / 3.4 lbs
337 x 231 x 21 mm	Size (metric)	338 x 233 x 15.6 mm	331 x 226 x 20.65 mm	338 x 233 x 15.9 mm	339 x 237 x 22.6 mm
13.27 x 9.1 x 0.83 in	Size (US)	13.31 x 9.19 x 0.63 in	13.03 x 8.9 x 0.81 in	13.31 x 9.19 x 0.63 in	13.35 x 9.33 x 0.89 in
January 2015	Launch date	January 2015	January 2015	January 2015	January 2015

### Dell Latitude 14 7000 unique features:

Two slots and up to 16GB is only available on Dell Latitude E7450, which has often more configuration flexibility.

Dell Latitude E7450 offers more security features, in particular Dell ControlVault chip and contactless smart card reader.

Dell Latitude E7450 integrated 3x3 antenna for high quality wireless LAN connectivity or Dell WiGig docking connectivity.



### Why Dell Latitude 14 7000:

- Better wireless connectivity
- Native Ethernet port
- More authentication factors
- Better security solution

### Why Dell Latitude 14 7000:

- Better wireless connectivity
- More authentication factors
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Lenovo battery system and memory choice compromise on flexibility and potential longevity of the Lenovo T450s, which more difficult to upgrade or replace the battery.

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- Better wireless connectivity
- Native Ethernet port
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- Better wireless connectivity
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# Latitude 13 7000 Series (7350)

The world's most secure 2-in-1 laptop, combining a lightweight business Ultrabook™ and a detachable 13-inch tablet.



Key features	Why it matters
Intel® Core™ M and Core™ M vPro processors	Multitask throughout your day with powerful Intel® Core™ M processor and Intel® Core™ M vPro processor family – optimized for 2-in-1 devices.
Full size business-class single point ISO keyboard with standard backlit	Work comfortably on-the-go with the full-size business-class single point ISO keyboard with standard backlight and the convenience of two USB 3.0 ports on the keyboard base.
Large 13.3" Full HD touch display	Enjoy ample viewing area for your content on a large 13.3-inch Full HD touch display. The latest 10-point capacitive touch technology delivers pinpoint accuracy and supports the optional Dell Active Stylus for easy note taking.
Best-in-class reliability	Subjected to MIL-STD 810G testing to ensure durability under extreme conditions. A spill-proof keyboard protects against liquid damage while the premium Corning® Gorilla® Glass touch display offers an optimal viewing experience with better touch sensitivity, brightness and durability. And, choose enterprise-level Dell ProSupport Plus for 24x7 access to expert support to minimize downtime.
All-day battery life	Go longer in between charges with up to 10 hours of battery life when you connect to the optional 2-cell battery in the keyboard base. And with the optional Dell Power Companion, get up to 21 hours and 14 minutes (with 3-cell and 2-cell battery, 128GB SSD).
WiGig wireless docking	Optional Dell Wireless Dock provides seamless high-speed wireless docking through Intel® WiGig technology powering up to two external displays, keyboard, mouse, audio and other peripherals for a desktop free of wires and elite at-the-desk productivity.
Purpose-built accessories	The Dell Mobile office was purposefully designed for the Latitude 13 7000 Series 2-in-1 to help end users achieve ultimate mobility productive throughout the workday.

## Recommended Accessories

### Dell Premier Briefcase

Provides the convenience and reliability of a mobile office with a sleek, travel-friendly design

### Dell Active Stylus

Enjoy natural interaction and improved productivity with your tablet

### Dell Premier Sleeve + Stand

Protect your system and maintain comfort in tablet mode with a 2-position stand

### Dell Adapter - USB 3.0 to HDMI/VGA/Ethernet/USB 2.0

Universal adapter provides multiple connectivity options in one convenient device

### Dell Portable Power Companion

Charge multiple devices simultaneously, and extend battery life while on-the-go

# Dell Latitude 7000 Series 2-in-1

Business as usual is never usual.

The world’s most secure 2-in-1 is a lightweight Ultrabook™ and a detachable 13-inch tablet in one powerful device, featuring Intel® Core™ M processors.

Latitude 13 7000 Series 2-in-1 is designed to keep you productive – on the road or at the office. To achieve ultimate mobility, a line of accessories purposefully designed for the Latitude 13 7000 Series 2-in-1 creates a functional mobile office that can keep on-the-go professionals productive throughout the workday.



HP Elite X2 1011	HP Pro x2 612	Microsoft Surface Pro 3	Lenovo Helix 2014
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Intel® Core™ M & Core™ M vPro™ i3, i5 or i7	Processor	Intel® Core™ M & Core™ M vPro™ i3, i5 or i7	4th Gen Intel® Core™ i up to Core™ i5	4th Gen Intel® Core™ i3, i5, i7 (i3 Y-series; i5/i7 U-series)"	Intel® Core™ M & Core™ M vPro™ (vPro Offering avaiable Jan 2015)"
Win8.1 & Win 8.1 Pro	Operating System	Win8.1,Win 8.1 Pro, Win 7 Pro	Win8.1 Pro / Win 8.1 / Win7 Pro	Win8.1	Win8.1 & Win 8.1 Pro
Intel HD 5300	Graphics	Intel HD 5300	Intel(R) HD 4200 Graphics	Intel® HD 5000 Graphics	Intel(R) HD 5300 Graphics
4GB/8GB 1600MHz	Memory	4GB/8GB 1600MHz	4GB/8GB 1600MHz	4GB/8GB RAM	4GB/8GB 1600MHz
13.3" FHD IPS (1920x1080) (400 nits) Gorilla Glass	Display	11.6" HD IPS(1366 x 768); 11.6" diagonal FHD IPS (1920 x 1080)	12.5" HD IPS (1366x768) or 12.5" FHD IPS (1920x1080) 300 nits	12" FHD+ IPS (2160x1440)	11.6" Full HD (1920 x 1080) IPS (400 nits) Gorilla Glass
Up to 512GB SSD	SSD option	Up to 512GB SSD	Up to 256GB SSD	Up to 512GB SSD	Up to 512GB SSD
None	Optical drive	None	None	None	None
Backlit	Keyboard	Backlit	Backlit	Backlit	Backlit
3C 30WHr in Tablet (up to 6.5hrs) 2C 20WHr in KB (up to 10hrs 58 mins)	Battery life	2-cell 33 WHr (tablet) 6-cell 21WHr ( keyboard)	4-cell 29.3WHr (tablet) (up to 8.5hrs) 2-cell 25WHr (keyboard) (up to 7 hrs)	36 WHr (tablet)	35WHr (tablet) (up to 8hrs) 26WHr (keyboard) (up to 4hrs)
Tablet - uSIM, Universal Jack KB Base - 2x USB 3.0, SD4.0	Input / output	Tablet: mSD; Universal Jack Keyboard: 2 USB 3.0	Tablet: 1xUSB3.0, mSD, Universal Jack Keyboard: 2xUSB 3.0, SD, RJ-45, Jack	Tablet: USB 3.0, mDP, mSD card slot, Universal Jack	Tablet: microHDMI, USB3.0, mSD Keyboard: USB3.0.
1x mDP	Video ports	1x mini DisplayPort, 1.2	1x DisplayPort, 1x VGA	N/A	1x mDisplayPort
Dual band Wi-Fi: 2x2 11ac	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN
Bluetooth 4.0, Intel WiDi, Miracast, WigiG	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0
Optional 4G LTE moble broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 3G or 4G mobile broadband	Optional 4G LTE mobile broadband	Optional 3G or 4G mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	N/A	N/A
TPM	Security chips	TPM	TPM	N/A	TPM
Optional Smartcard reader, Fingerprint reader	Authentication factors	Fingerprint reader, smart card reader	Smart card reader, optional fingerprint reader	N/A	Fingerprint Reader, Optional Smart Card Reader
"Dell Data Protection Security Tools & Encryption, Dell Controlvault	Security software	HP Client Security	HP Client Security	N/A	N/A
Tablet - 904.1g = 1.99lbs Clamshell - 1668.3g = 3.67lb"	Weight	Starting at 1.92 lb (tablet); Starting at 1.71 lb (power keyboard)	"Tablet - 2.22lbs/1.01kg Clamshell - 4.09lbs/1.86kg"	800g (1.76lbs)	Tablet - 795g/1.8lbs Tablet w/Ultrabook Pro KB - 1.7kg/3.7lbs
Tablet - 320mm * 206mm * 10.725mm Clamshell - 320 * 229.73 * 19.925mm	Size (metric)	297mm x 204mm x 21 in (tablet with power keyboard)	Tablet - 307x209.5x12.8mm Clamshell - 317x239.5x23.3mm	292.1mm x 201.4mm x 9.1mm	Tablet: 301.1 x 192.5 x 9.6mm Clamshell: 301.1 x 215.7 x 25.4mm
Tablet - 12.6in * 8in * .4in Clamshell - 12.6in * 9in * .78in	Size (US standard)	11.73 x 8.04 x 0.82 in (tablet with power keyboard)	Tablet - 12inx8inx.31 Clamshell - 12.5inx9.4inx.9in	11.5" x 7.93" x 0.36"	Tablet: 11.85inx 7.6in x .38in Clamshell: 11.85in x 8.46 x 1in

Dell Latitude 7000 Series 2-in-1 unique features:

- WiGig Connectivity
- Dell ControlVault chip and contactless smart card reader



Why Dell Latitude 7000 Series 2-in-1:

- Better connectivity

Why Dell Latitude 7000 Series 2-in-1:

- Thinner and lighter
- More storage options

Why Dell Latitude 7000 Series 2-in-1:

- Full security offerings
- Longer battery life

Why Dell Latitude 7000 Series 2-in-1:

- Thinner and lighter
- Longerbattery life

# Latitude 5000 Series (E5x50)

Fully-featured business-class mobile workhorse in a beautiful thin and light design.



Key features	Why it matters
Thin and light	Dell's thinnest and lightest mainstream laptop yet by up to 30%, with the 12-inch starting at 3.4lbs and 22.7mm Z height.
Built with premium materials	Built with Glass Fiber Reinforced Polymer/Magnesium, designed to survive challenging physical environments. Additionally, the Latitude 5000 Series undergoes extensive MIL-STD 810G testing.
Optional touch display	Dell touch-enabled displays offer optimal viewing experience, touch sensitivity, brightness and durability with edge-to-edge Corning® Gorilla® Glass NBT™, plus 10x scratch resistance. (Edge to edge is only available on 12")
Best-in-class reliability	Built to last, with spill-proof keyboard and vigorous anodized hinge solution, plus an optional structure-enhanced optional Magnesium display cover. Your device is also backed by enterprise-level Dell ProSupport Plus for 24x7 access to expert support to minimize downtime,
All-day battery life	Power through your work day with up to 9 hours battery life (with the optional 4-cell battery), and with the optional Dell Power Companion, get up to 28 hours and 2 minutes (with 4-cell battery, 128 mSATA, UMA graphics).
Elite connectivity experience	Compatible with the E-family docking station or choose the Dell Wireless Dock, for seamless high-speed wireless docking through Intel® WiGig technology powering up to two external displays, keyboard, mouse, audio and other peripherals for a desktop free of wires. Also, Intel® Pro Wireless Display technology (Intel® Pro WiDi) allows users to connect wirelessly to projectors and displays with the security and configuration capabilities IT requires.

## Recommended Accessories

### Dell E-Port Replicator

Achieve full desktop functionality with one simple connection

### Dell 23 Monitor – P2314H

Bring your work to life with color clarity and a variety of adjustability features

### Dell Wireless Keyboard & Mouse – KM632

Create in a clutter-free workspace clear of cables

### Dell Professional Topload Carrying Case

Comfortably carry whatever you need for the day

### Dell Portable Power Companion

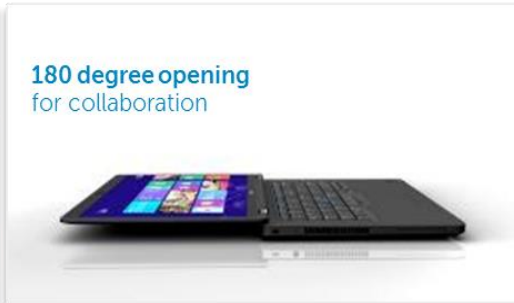
Charge multiple devices simultaneously, and extend battery life while on-the-go



# Latitude 5000 Series: 30% thinner and lighter with premium features



**Gorilla Glass for Touch**



**180 degree opening**  
for collaboration



**E-doc** for at-the-desk productivity



**Spill proof keyboard**



**Ergonomic keyboard & inviting keycap contour design** follows the form of user's finger tip



**Single door access** allows user to upgrade internal components

## The world's most durable mainstream with enhanced materials & structure

### **Durable display bezel with double injected Elastomer bumper**

Avoid scratches on palmrest and screen during travel

### **ISO keyboard**

Full key travel with durable finish

### **Metal keyboard support**

Provides rigid support for keyboard

### **Structure enhanced logic**

Firm structure design with glass fill molded solution provides sturdy structure for the chassis



### **Structure enhanced magnesium display cover**

Provides durable structure without burdening weight.

### **Vigorous anodized aluminum hinge solution**

Tested under Dell durability specs for rotation cycle, display wobble and drop test

### **Durable bottom door**

Glass fill molded door provides firm support to the chassis

# Latitude 5000 Series keyboard matrix

## E5x50

Keyboard	12-inch	14-inch	15-inch
Base no fingerprint reader, no contacted smartcard, no contactless smartcard, no Control Vault	Single Pointing Backlit/non-backlit	Single Pointing Non-backlit	Dual Pointing Backlit/non-backlit
Smart card only Contacted smartcard, Control Vault	Single Pointing Backlit/non-backlit	Single Pointing Non-backlit <u>OR</u> Dual Pointing Backlit	Dual Pointing Backlit/non-backlit
Standard fingerprint reader, contacted smartcard, contactless smart card/NFC, Control Vault. (NFC + Win 8.1 @ launch. NFC + Win 7 in early 2015)	Single Pointing Backlit/non-backlit	Dual Pointing Backlit	Dual Pointing Backlit/non-backlit
FIPs FIPs fingerprint reader, contacted smartcard, contactless smart card/NFC, Control Vault. (NFC + Win 8.1 @ launch. NFC + Win 7 in early 2015)	NA	NA	Dual Pointing Backlit/non-backlit

# Dell Latitude 12 5000

Thinner than ever: The Latitude 12 has a starting weight of just 2.7 lb (1.25kg) .

Manage the expected and the unexpected with the Latitude 5000 Series featuring Intel® Core™ processors, Microsoft Windows® 8 or Windows 7 Pro. It's the most manageable mainstream Latitude with optional Intel® vPro™ technology that allows exceptional control from remote locations. A Full HD touch screen option features scratch-resistant Corning® Gorilla® Glass NBT™ to deliver bright viewing, vivid color and proven durability.



5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i3, i5 or i7	5th generation Intel® Core™ i3, i5 or i7			
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu			
Intel HD 5500	Graphics	Intel HD 5500	Intel HD 5500			
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)			
12.5" HD or Full HD LED-backlit	Display	12.5" HD or Full HD LED-backlit	12.5" HD or Full HD LED-backlit			
Touch with Full HD panel	Touch option	Touch with Full HD panel	Touch with Full HD panel			
Up to 1TB 5400 rpm HDD	Hard drive option	Up to 1TB 5400 rpm HDD	Up to 1TB 5400 rpm HDD			
Up to 512GB SSD	SSD option	Up to 512GB SSD	Up to 512GB SSD			
External	Optical drive	None	None			
Backlit, single pointing	Keyboard	Backlit, dual pointing	Backlit, dual pointing			
Up to 13.9 hours with 4-cell	Battery life	Information not provided	Up to 12 hours battery life with 3-cell			
3x USB 3.0, RJ-45, SD	Input / output	3x USB 3.0, RJ-45, SD	3x USB 3.0, RJ-45, SD			
1x mini DisplayPort, 1x HDMI	Video ports	1x DisplayPort, 1x VGA	1x DisplayPort			
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN			
Bluetooth 4.0, WiGig option	Wireless connectivity	Bluetooth 4.0, NFC	Bluetooth 4.0, NFC			
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband			
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot			
TPM, Dell ControlVault™, optional Hardware Crypto Accelerator	Security chips	TPM	TPM			
Fingerprint, smart card, contactless smart card reader options	Authentication factors	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader			
Dell Data Protection   Encryption	Security software	Full volume encryption	Full volume encryption			
Starting at 1.56 kg / 3.44 lbs	Weight	Starting at 1.34 kg / 2.94 lbs	Starting at 1.34 kg / 2.94 lbs			
310.5 x 213 x 22.7 mm	Size (metric)	310 x 215 x 21 mm	310 x 215 x 21 mm			
12.2 x 8.4 x 0.9 in	Size (US)	12.2 x 8.48 x 0.83 in	12.2 x 8.48 x 0.83 in			
January 2015	Launch date	January 2015	January 2015			

### Dell Latitude 12 5000 unique features:

Dell Latitude 12 5000 is the only 12" commercial mainstream Ultrabook.

Dell Latitude E5250 offers more security features, in particular Dell ControlVault chip and contactless smart card reader.

Dell Latitude E5250 offers optional Dell WiGig docking connectivity.



### Why Dell Latitude 12 5000:

- WiGig option
- More authentication factors
- Better security solution

### Why Dell Latitude 12 5000:

- WiGig option
- More authentication factors
- Better security solution



# Dell Latitude 14 5000

Thinner than ever: The Latitude 14 has a starting weight of just 3.98 lb (1.81kg).

Manage the expected and the unexpected with the Latitude 5000 Series featuring Intel® Core™ processors, Microsoft Windows® 8 or Windows 7 Pro. It's the most manageable mainstream Latitude with optional Intel® vPro™ technology that allows exceptional control from remote locations. A Full HD touch screen option features scratch-resistant Corning® Gorilla® Glass NBT™ to deliver bright viewing, vivid color and proven durability.



5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i3, i5 or i7	5th generation Intel® Core™ i3, i5 or i7	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ i5 or i7
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Linux	Microsoft® Windows 7 & 8.1, Linux
Intel HD 5500 or nVidia GeForce	Graphics	Intel HD 5500 or nVidia GeForce	Intel HD 5500 or AMD	Intel HD Graphics 5500	Intel HD 5500 or AMD Radeon
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)
14" HD or Full HD LED-backlit	Display	14" HD or HD+ LED-backlit	14" HD or Full HD LED-backlit	14" HD, HD+ (1600x900) or Full HD	14" HD, HD+ (1600x900) or Full HD
Optional touch with Full HD panel	Touch option	Optional touch	N.A.	Optional touch with Full HD	Optional touch with Full HD
Up to 1TB SATA 5400 rpm HDD	Hard drive option	Up to 500GB SATA 7200 rpm HDD	Up to 1TB SATA 5400 rpm HDD	Up to 1TB SATA 5400 rpm HDD	Up to 1TB SATA 5400 rpm HDD
Up to 512GB SSD	SSD option	Up to 256GB SSD	Up to 360GB SSD	Up to 512GB SSD	Up to 256GB SSD
External	Optical drive	None	None	None	None
Backlit, dual pointing	Keyboard	Backlit, dual pointing	Non-backlit, Single pointing	Optional backlit	Optional backlit
Up to 14.5 hours with 4-cell	Battery life	Up to 10 hours battery life with 3+3 cell	Up to 5.2 hours battery life with 3 cell	Information not available	Information not available
3x USB 3.0, SD/MMC, RJ-45	Input / output	3x USB 3.0, SD, RJ-45	3x USB 3.0, SD, RJ-45	4x USB 3.0, SD, RJ-45	3x USB 3.0, SD, RJ-45
1x HDMI, 1x VGA	Video ports	1x mini DisplayPort, 1x VGA	1x mini DisplayPort, 1x VGA	1x DisplayPort, 1x VGA	1x DisplayPort, 1x VGA
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN
Bluetooth 4.0, WiGig option	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0, NFC	Bluetooth 4.0, NFC
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G LTE mobile broadband	Optional 4G LTE mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Kensington lock slot	Kensington lock slot
TPM, Dell ControlVault™, optional Hardware Crypto Accelerator	Security chips	TPM	TPM	TPM	TPM
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader	Fingerprint reader
Dell Data Protection   Encryption	Security software	Third party software	Third party software	Full volume encryption	Full volume encryption
Starting at 1.81 kg / 3.98 lbs	Weight	Starting at 1.73 kg / 3.81 lbs with 3+3 cell	Starting at 1.93 kg / 4.25 lbs	Starting at 1.58 kg / 3.48 lbs	Starting at 2 kg / 4.4 lbs
334.9 x 231.1 x 22.8 mm	Size (metric)	339 x 232.5 x 21 mm	339 x 235 x 24.3 mm	339 x 237 x 21 mm	340 x 237 x 25 mm
13.2 x 9.1 x 0.9 in	Size (US)	13.35 x 9.15 x 0.83 in	13.3 x 9.3 x 0.9 in	13.35 x 9.15 x 0.83 in	13.39 x 9.33 x 0.99 in
January 2015	Launch date	January 2015	January 2015	January 2015	January 2015

### Dell Latitude 14 5000 unique features:

Dell Latitude E5450 offers more security features, in particular Dell ControlVault chip and contactless smart card reader.

Dell Latitude E5450 offers optional Dell WiGig docking connectivity.



### Why Dell Latitude 14 5000:

- Up to 512GB SSD
- Full HD panel option
- Better battery life
- WiGig option
- More authentication factors
- Better security solution

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- WiGig option
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# Dell Latitude 15 5000

Thinner than ever: The Latitude 15 has a starting weight of just 3.4 lb (1.54kg) .

Manage the expected and the unexpected with the Latitude 5000 Series featuring Intel® Core™ processors, Microsoft Windows® 8 or Windows 7 Pro. It's the most manageable mainstream Latitude with optional Intel® vPro™ technology that allows exceptional control from remote locations. A Full HD touch screen option features scratch-resistant Corning® Gorilla® Glass NBT™ to deliver bright viewing, vivid color and proven durability.



Lenovo ThinkPad T550	HP EliteBook 750 G2	HP EliteBook 850 G2
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5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ i3, i5 or i7	5th generation Intel® Core™ i3, i5 or i7	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	
Intel HD 5500 or nVidia GeForce	Graphics	Intel HD 5500 or nVidia	Intel HD 5500	Intel HD 5500 or AMD	
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)	
14" HD or Full HD LED-backlit	Display	15.6" HD or Full HD	15.6" HD or Full HD	15.6" HD or Full HD	
Optional touch with both panels	Touch option	Optional touch	Optional touch with Full HD panel	Optional touch with Full HD panel	
Up to 1TB SATA 5400 rpm HDD	Hard drive option	Up to 500GB 7200 rpm HDD	Up to 1TB SATA 5400 rpm HDD	Up to 1TB SATA 5400 rpm HDD	
Up to 512GB SSD	SSD option	Up to 256GB SSD	Up to 512GB SSD	Up to 512GB SSD	
External	Optical drive	None	None	None	
Backlit, dual pointing	Keyboard	Backlit	Backlit, dual pointing	Backlit, dual pointing	
Up to 12 hours with 4-cell	Battery life	Up to 14.8 h battery life with 3+3 cell	Up to 12.25 hours battery life with 3-cell	Up to 12.25 hours battery life with 3-cell	
3x USB 3.0, SD/MMC, RJ-45	Input / output	3x USB 3.0, RJ-45, SD	4x USB 3.0, RJ-45, SD	4x USB 3.0, RJ-45, SD	
1x HDMI, 1x VGA	Video ports	1x mini DisplayPort, 1x VGA	1x DisplayPort	1x DisplayPort	
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN	
Bluetooth 4.0, WiGig option	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0, optional NFC	Bluetooth 4.0, optional NFC	
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Kensington lock slot	
TPM, Dell ControlVault™, optional Crypto Accelerator	Security chips	TPM	TPM	TPM	
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader	Fingerprint reader, smart card reader	
Dell Data Protection   Encryption	Security software	No encryption software	Full volume encryption	Full volume encryption	
Starting at 2.15 kg / 4.71 lbs	Weight	Starting at 2.13 kg / 4.70 lbs with 3+3cell	Starting at 1.83 kg / 4.02 lbs	Starting at 1.83 kg / 4.02 lbs	
377 x 255 x 23.5 mm	Size (metric)	380.6 x 258.2 x 22.45 mm	375.5 x 253.6 x 21.4 mm	375.5 x 253.6 x 21.4 mm	
14.8 x 10.1 x 0.9 in	Size (US)	14.98 x 10.17 x 0.88 in	14.78 x 9.98 x 0.98 in	14.78 x 9.98 x 0.98 in	
January 2015	Launch date	January 2015	January 2015	January 2015	

### Dell Latitude 15 5000 unique features:

Dell Latitude E5550 offers more security features, in particular Dell ControlVault chip and contactless smart card reader.

Dell Latitude E5550 offers optional Dell WiGig docking connectivity.



### Why Dell Latitude 15 5000:

- Optional WiGig connectivity
- More authentication factors
- Better security solution

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# Latitude 3000 Series (3x50)

Performance you can rely on. For small and growing businesses who want a secure, easily managed and reliable laptop.



Key features	Why it matters
Essential features for mobile performance	Get up to 16GB of memory and 1TB of HDD or Hybrid storage options. Modern desktop performance is never far away with optional touch screen, plus USB 3.0 and 2.0 docking capability, RJ45, HDMI and VGA. Work seamlessly in low-lighting situations with optional backlit keyboard.
Outstanding reliability	More durable than its predecessor, and part of the most durable laptop family, it features a durable, built-to-last chassis that has undergone extensive MIL-STD 810G testing and is backed by enterprise-class support and services, including optional Dell ProSupport Plus.
Best-in-class security with Dell Data Protection   Encryption*	Dell Data Protection   Encryption protects your data across all endpoints, including external media and in public cloud storage. Stop advanced malware in its tracks with DDP   Protected Workspace and enable advanced authentication options with DDP   Security Tools.
World's most manageable with Dell Client Command Suite tools and Dell Configuration & Deployment Services	Dell builds management capabilities into our Latitude portfolio to make the most of your hardware investment, and with the new Dell Client Command Suite, our free automation tools help simplify IT time spent on deploying, monitoring and updating systems. We also offer five generations of updates, and with Latitude's single-door access, you can easily upgrade internal components.
Optional touch display	Dell touch-enabled displays offer optimal viewing experience, touch sensitivity, brightness and durability with edge-to-edge Corning® Gorilla® Glass NBT™.
All-day battery life	Power through your work day with up to 10 hours battery life (with the optional 4-cell battery), and with the optional Dell Power Companion, get up to 18 hours and 13 minutes (with 4-cell battery, 500GB 7200 rpm SATA3).

## Recommended Accessories

### Dell Monitor Stand with Port Replicator – MKS14

Achieve full desktop functionality

### Dell Monitors – P2214H or P2414H

Bring your work to life with color clarity and a variety of adjustability features

### Dell Wireless Keyboard & Mouse – KM632

Create in a clutter-free workspace clear of cables

### Dell Professional Topload Carrying Case

Comfortably carry whatever you need for the day



# Dell Latitude 14 3000

Performance you can rely on.

For small and growing business professionals who want a secure, easily managed and reliable laptop with strong performance for everyday productivity.

The new Latitude 14 3000 Series is thinner and lighter than ever before, and features the latest generation of Intel® Core™ processors and Windows 7 Professional or Windows 8.1. Work from anywhere with the optional 4-cell battery and a host of connectivity options.



Lenovo ThinkPad E450	HP ProBook 440 G2
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5th generation Intel® Celeron, Pentium, Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i3, i5 or i7	4th or 5th generation Intel® Celeron, Pentium, Core™ i3, i5 or i7		
Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux	Operating System	Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux	Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux		
Intel HD (w/Celeron), Intel HD 5500 or nVidia GeForce 830M	Graphics	Intel HD 5500 Graphics or AMD Radeon R5 M240 or R7 M260	Intel HD (with Celeron) or HD 5500 Graphics or AMD Radeon R5 M255		
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)		
14" HD or Full HD WLED	Display	14" HD or Full HD WLED	14" HD or HD+		
Optional HD touch with Corning Gorilla Glass	Touch option	Optional HD touch	Optional HD scratch resistant LED-backlit touch screen		
Up to 1TB 5400 rpm 8GB Cache SSHD	Hard drive option	Up to 1TB 5400 rpm HDD	Up to 500GB 5400 rpm SSHD		
Up to 128GB SSD	SSD option	Up to 128GB SSD	Up to 128GB SSD		
None	Optical drive	None	Blu-ray, DVD+/-RW,		
Optional Backlit	Keyboard	Backlit not offered	Optional Backlit		
Up to 18 hours with 4-cell/58Whr battery & Dell Power Companion (PW7015L)	Battery life	Up to 9 hours battery life with 6-cell/47Whr	Up to 10.25 hours battery life with 4-cell/44Whr or 6-cell/51Whr		
2xUSB 3.0, 1xUSB 2.0, SD, RJ-45	Input / output	2xUSB 3.0, 1xUSB 2.0, SD, RJ-45	2xUSB 3.0, 2xUSB 2.0, SD, RJ-45		
1xVGA, 1xHDMI	Video ports	1xHDMI	1xVGA, 1xHDMI		
Dell Wireless 1707 bgn 1x1 or Intel 7265 AGN 2x2	Wireless LAN	Realtek bgn 1x1, Intel 3160 AC 1x1, Intel 7265 AC 2x2	Realtek bgn 1x1, Intel 3160 AC 1x1, Intel 7265 AC 2x2		
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0		
NA	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband		
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot		
No TPM	Security chips	TPM 1.2	TPM 1.2		
Optional Fingerprint reader	Authentication factors	Optional Fingerprint reader	Optional Fingerprint reader		
Dell Data Protection   Encryption	Security software	3rd Party Norton Internet Security	HP Client Security		
Starting at 1.9 kg / 4.2 lbs (w/3-cell battery)	Weight	Starting at 1.81 kg / 4.0 lbs (w/6-cell battery)	Starting at 1.8 kg / 3.97 lbs (w/4-cell battery & SSD)		
342 x 245.9 x 22.2 mm (non-touch)	Size (metric)	339 x 239 x 24 mm (non-touch)	339.2 x 244.5 x 26.6 mm (non-touch)		
13.46 x 9.68 x 0.87 in (non-touch)	Size (US)	13.35 x 9.41 x 0.94 in (non-touch)	13.35 x 9.61 x 0.99 in (non-touch)		
January 2015	Launch date	Early 2014	Early 2014		

Dell Latitude 14 3000 unique features:

- No WLAN AC option
- No WWAN option
- No TPM
- No Optical Drive



Why Dell Latitude 14 3000:

- Longer battery life with optional Power Companion
- Thinnest SMB designed laptop at 22.2mm/.87 in.
- VGA not available on E450

Why Dell Latitude 14 3000:

- Longer battery life with optional Power Companion
- Thinnest SMB designed laptop at 22.2mm/.87 in.
- FHD option not available on ProBook 440 G2

# Dell Latitude 15 3000

Performance you can rely on.

For small and growing business professionals who want a secure, easily managed and reliable laptop with strong performance for everyday productivity.

The new Latitude 15 3000 Series is thinner and lighter than ever before and features the latest generation of Intel® Core™ processors and Windows 7 Professional or Windows 8.1. Work from anywhere with up to 9 hours of battery life with the optional 4-cell battery and a host of connectivity options.



Lenovo ThinkPad E550	HP ProBook 450 G2
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5th generation Intel® Celeron, Pentium, Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i3, i5 or i7	4th or 5th generation Intel® Celeron, Pentium, Core™ i3, i5 or i7		
Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux	Operating System	Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux	Microsoft® Windows 7, 8.1, 10 & Ubuntu Linux		
Intel HD 5500 or nVidia GeForce 830M	Graphics	Intel HD 5500 Graphics or AMD Radeon R5 M240 or R7 M260	Intel HD (with Celeron) or HD 5500 Graphics or AMD Radeon R5 M255		
Up to 16 GB DDR3L memory (2 DIMM)	Memory	Up to 16 GB DDR3L memory (2 DIMM)	Up to 16 GB DDR3L memory (2 DIMM)		
15.6" HD or Full HD WLED	Display	15.6" HD or Full HD WLED	15.6" HD or FHD		
Optional HD touch with Corning Gorilla Glass	Touch option	Optional HD touch	Optional HD scratch resistant LED-backlit touch screen		
Up to 1TB 5400 rpm 8GB Cache SSHD	Hard drive option	Up to 1TB 5400 rpm HDD	Up to 500GB 5400 rpm SSHD		
Up to 128GB SSD	SSD option	Up to 128GB SSD	Up to 128GB SSD		
None	Optical drive	None	Blu-ray, DVD+/-RW		
Optional Backlit	Keyboard	Backlit not offered	Optional Backlit		
Up to 6.5 hours with 4-cell/58Whr battery & Dell Power Companion (PW7015L)	Battery life	Up to 9 hours battery life with 6-cell/47Whr	Up to 10.25 hours battery life with 4-cell/44Whr or 6-cell/51Whr		
2xUSB 3.0, 1xUSB 2.0, SD, RJ-45	Input / output	2xUSB 3.0, 1xUSB 2.0, SD, RJ-45	2xUSB 3.0, 2xUSB 2.0, SD, RJ-45		
1xVGA, 1xHDMI	Video ports	1xHDMI	1xVGA, 1xHDMI		
Dell Wireless 1707 bgn 1x1 or Intel 7265 AGN 2x2	Wireless LAN	Realtek bgn 1x1, Intel 3160 AC 1x1, Intel 7265 AC 2x2	Realtek bgn 1x1, Intel 3160 AC 1x1, Intel 7265 AC 2x2		
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0		
NA	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband		
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot		
No TPM	Security chips	TPM 1.2	TPM 1.2		
Optional Fingerprint reader	Authentication factors	Optional Fingerprint reader	Optional Fingerprint reader		
Dell Data Protection   Encryption	Security software	3rd Party Norton Internet Security	HP Client Security		
Starting at 2.17 kg / 4.78 lbs (w/3-cell battery)	Weight	Starting at 2.35 kg / 5.21 lbs (w/6-cell battery)	Starting at 2.06 kg / 4.54 lbs (w/4-cell battery & SSD)		
380.4 x 259 x 22.3 mm (non-touch)	Size (metric)	377 x 256 x 27 mm (non-touch)	375 x 262.8 x 25.5 mm (non-touch)		
14.98 x 10.19 x 0.88 in (non-touch)	Size (US)	14.84 x 10.08 x 1.06 in (non-touch)	14.76 x 10.35 x 1.00 in (non-touch)		
January 2015	Launch date	Early 2014	Early 2014		

Dell Latitude 15 3000 unique features:

- No WLAN AC option
- No WWAN option
- No TPM
- No Optical Drive



Why Dell Latitude 15 3000:

- Longer battery life with optional Power Companion
- Thinnest SMB designed laptop at 22.3mm/.88 in.
- VGA not available on E550

Why Dell Latitude 15 3000:

- Longer battery life with optional Power Companion
- Thinnest SMB designed laptop at 22.3mm/.88 in.

# Precision

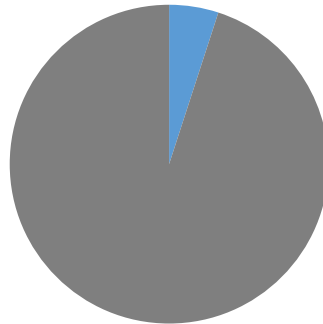


# Why sell Precision:

## Precision is a significant contributor to Dell's bottom Line

~6%

Precision is only 6% of Commercial Client units sold



■ Precision ■ Rest

Workstation users buy HIGH VALUE peripherals



~12%

Of Client Solutions Revenue is from Precision



Highest ProSupport attach rate



~25%

Of Client Solutions **Margin** is from Precision



Opens the door for other biz client & data center opportunities





# Dell Precision Mobile Workstations

Services + Products + Software + Accessories



**M2800**

Professional performance meets affordability



**M3800**

The thinnest, lightest, 15" workstation in the world



**M4800/M6800**

The most powerful 15" or 17" inch mobile workstation

Entry

Thin and Light

Highest Performance and Scalability

most **secure** | most **manageable** | most **reliable**  
backed by Dell ProSupport™ Plus

## How to uncover if your customer needs a workstation

### Basic questions and words to listen for:

#### What type of work will you be using your PC for?

- **Media & Entertainment:** Graphic design, Game development, Film, Video, VFX, Post production, Sound, Web design
- **Manufacturing & Engineering:** Manufacturing of products, machinery and fabrication; Architecture, Engineering, Construction; Aerospace and transportation
- **Sciences:** Healthcare Life Sciences, Oil & Gas, Geographic Information Systems (GIS)
- **Economics & Financial Services:** Trading; Financial Analysis

#### Which company's software applications are you using?

- **Media & Entertainment:** Adobe, Autodesk, Avid, The Foundry, Grass Valley, Sony, Maxon, Cakewalk
- **Manufacturing & Engineering:** Autodesk, Solidworks, Dassault Systems, AnSys, PTC, Altair, Siemens, Spaceclaim, Bentley, MSC Software
- **Sciences:** Halliburton, Schlumberger, Dynamic Graphics, esri, ffa, Dome, Barco, National Instruments, Acceleware, SciComp
- **Economics & Financial Services:** Aquamin, SciComp, In-house custom applications

#### How powerful do you need your system to be? *(Buzz words)*

- **Processors:** Intel Core or Xeon; Multi-core; Dual; Higher performance
- **Graphics:** Professional-grade; OpenGL; GP GPU (graphics compute); 2D or 3D, NVidia, AMD; Multiple graphics cards
- **Displays:** Multiple; High resolution; Ultra HD; 4K/5K; Color quality or calibration
- **Hard drives:** RAID; PCIe SSD; Multiple hard drives
- **Memory:** Error Correcting Code (ECC); Dell Reliable Memory Technology (RMT); >64GB
- **Virtualization:** 1 to many; Rack; Teradici PCoIP®
- **App support:** ISV Certified; Dell Precision Optimizer (Automated performance tuning for key applications)

## Awards & Recognition

**LAPTOP**  
part of tom'sGUIDE

Laptopmag.com ranks Dell laptops #1 in "innovation, value and selection"

**CRN**  
**CRN**  
PRODUCTS  
OF THE  
**YEAR**  
**2014**

Dell Precision M2800: Honorable Mention  
CRN Test Center's 2014 Products Of The Year

Dell Precision M2800  
"The Top 10 fastest laptops has a new leader"



Dell Precision M3800  
Earns 4.5/5 rating and "Best Buy" award



Dell Precision M4800  
"No task is too difficult for this workstation."



Dell Precision M6800  
"For the most demanding of road warriors."

# Dell Precision mobile workstations

## Performance

Dell Precision delivers the world's most powerful mobile workstations with the very latest technologies. No job is too big with the latest Intel Core and Xeon processors, professional-grade graphics, amazing displays and robust memory and storage options. Dell Precision Optimizer works with some of the most popular Independent Software Vendor (ISV)-certified applications and automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity.

## Innovative Design

From the world's thinnest and light mobile workstation to the world's most powerful, Dell offers a variety of choices to deliver to your unique needs. Made with premium materials and state-of-the-art features Precision workstations are impressive on the inside and out.

## Reliability

Precision workstations are tested, certified and supported to deliver optimum reliability and maximum uptime. Long lifecycles and transitions enable simple planning for future product roll-outs, while ImageWatch™ gives advanced views of software and hardware changes. Dell solutions are certified by our independent software vendor (ISV) partners to provide assurance that specific hardware and software combinations meet key performance and reliability criteria and to guarantee accountability and support for certified configurations. All Precision workstations are backed by Dell's award-winning support services. Optional ProSupport Plus is the only complete support that combines proactive resolution, automated prevention and protection for PCs and tablets.



## Dell has it. HP doesn't. Outstanding performance & reliability

### Designed from the inside out for superior performance with certified dependability

	Dell Precision	HP ZBook
Dell Precision M4800 and M6800 are the world's most powerful mobile workstations .....	✓	✗
Dell Precision M3800 is the world's thinnest and lightest 15" mobile workstation .....	✓	✗
Dell Precision Performance Optimizer for M4800 & M6800 boosts performance of select applications .....	✓	✗
Dell Precision M4800 and M6800 feature optional RAID 5 storage for speed and redundancy .....	✓	✗

## More Secure

### World's most secure mobile workstations

	Dell Precision	HP ZBook
Dell Precision M4800 and M6800 are the world's most secure mobile workstations .....	✓	✗
TPM 2.0 specifications available with additional cryptographic services for enhanced security .....	✓	✗
Dedicated security model with both a smartcard reader and biometric fingerprint reader .....	✓	✗

## More Manageable

### Management features to optimize business productivity

	Dell Precision	HP ZBook
Dell ProSupport Plus, option for proactive & predictive support, Next Business Day Onsite Service after remote diagnosis with 24x7x365 tech-to-tech support...	✓	✗
SCCM extensions for one-to-many out-of-band BIOS management and monitoring with Intel® vPro™ .....	✓	✗

### Dell Precision Performance Optimizer (DPPO)

A unique technology available on M2800, M4800 & M6800. DPPO is also available on Precision Fixed Workstations.

- Automatic tuning of workstation settings to enhance performance of select applications
- Keeps workstation up to date with latest driver, software, & firmware updates
- Track and report on system utilization to proactively manage potential issues

### Preconfigured settings for:

- Adobe Creative Cloud®
- Adobe® Photoshop® CS/CC
- Adobe® Premiere® Pro CS/CC
- Adobe® After Effects® CS/CC
- Adobe® Media Encoder® CS/CC
- Autodesk® AutoCAD®
- Autodesk® Maya®
- Dassault Systèmes SolidWorks®
- Dassault Systèmes CATIA
- PTC® Creo®
- Siemens NX™

Discover more about the Dell Precision Performance Optimizer and download it on [dell.com](http://dell.com)

# Precision M6800 Mobile Workstation

The world's most powerful 17" workstation with robust features in a mobile design



Key features	Why it matters
4 <sup>th</sup> Generation Intel Core i5 and Intel Core i7 Processors with optional vPro	No task is too big. The Dell Precision M6800 Mobile Workstation delivers no-holds-barred processing capabilities with high-performance 4th Generation Intel® Core™ i7 and Intel® Core™ i5 processor options.
Powerful professional graphics with your choice of AMD FirePro or NVIDIA Quadro graphics with up to 8GB of GDDR5 memory	Responsive AMD FirePro™ and NVIDIA Quadro® graphics options with up to 8GB of GDDR5 memory keep pace with demanding 3D rendering and other graphics-intensive tasks.
Choose from AMD Enduro or NVIDIA Optimus technologies	Brains and brawn. Ratchet up graphics performance when you need it, and save battery power when you don't.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
RAID configurations available	Maximize storage performance and reliability with available RAID configurations across three drives.
17.3" FHD display with touch option	Your optional touch display isn't just amazing to look at — it's phenomenal to work on. Multitask with a swipe, tap or drag of your fingers.
ISV Certification	The Dell Precision Workstations you purchase are tested to ensure the high-performance applications you rely on every day run smoothly. ISV certification is the result of precise engineering and rigorous testing to optimize performance and reliability to run leading industry applications.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Advanced Port Replicator

Simplify connections to your keyboard, mouse and up to four monitors and transfer data quickly with two USB 3.0 ports.

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### Targus 17" Drifter Backpack

The ideal combination of style and protection, this backpack features a padded laptop compartment to keep your device safe and secure

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

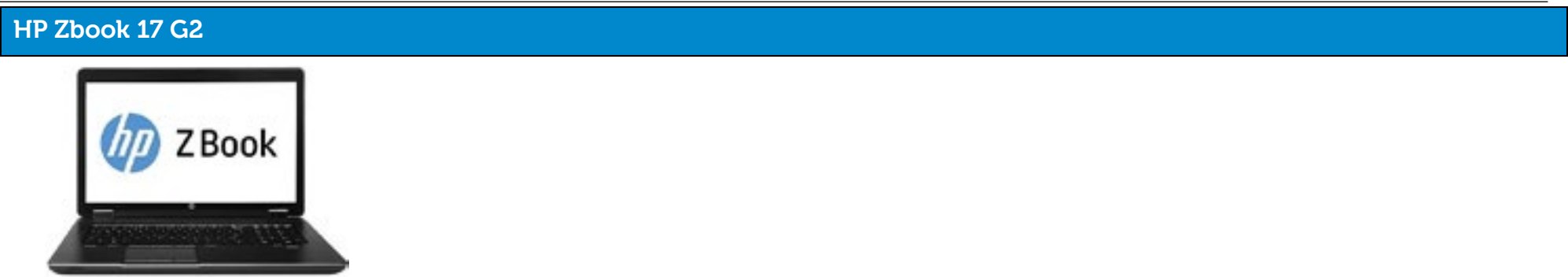


# Dell Precision M6800

The world's most powerful 17" Workstation.

The Dell Precision M6800 offers tons of storage with up to four separate storage devices and optional RAID 0, 1 and 5.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Up to Intel® Core™ i7-4940MX	Quad Core Processor	Up to Intel® Core™ i7-4940MX				
Up to Intel® Core™ i7-4610M	Dual Core Processor	Up to Intel® Core™ i7-4610M				
Microsoft® Windows 7 & 8.1, Red Hat	Operating System	Microsoft® Windows 7 & 8.1				
AMD FirePro™ M5100 2GB NVIDIA Quadro K2200M 2GB NVIDIA Quadro K3100M or K4100M 4GB NVIDIA Quadro K6100M 8GB	Discrete Graphics	AMD FirePro™ M6100 2GB NVIDIA Quadro K1100M or K2200M 2GB NVIDIA Quadro K3100M or K4100M 4GB NVIDIA Quadro K5100M 8GB				
Up to 16GB 1866MHz DDR3L Up to 32GB 1600MHz DDR3L	Memory	Up to 32GB 1600MHz DDR3L				
17.3" HD+ or Full HD LED-backlit	Display	17.3" HD+ or Full HD LED-backlit				
Optional 10 finger touch	Touch option	N.A.				
Up to 1TB SATA 5400 rpm HDD	Hard drive option	Up to 1TB SATA 7200 rpm HDD				
Up to 1TB SSD & 1TB mSATA SSD	SSD option	Up to 512GB SSD				
DVD, DVD+/-RW or Blu-ray Disc™ writer	Optical drive	DVD+/-RW or Blu-ray Disc™ writer				
Backlit option, dual pointing	Keyboard	Backlit option, dual pointing				
6-cell (65 Wh) or 9-cell (97Wh)	Battery	8-cell (83 Wh) or 8-cell (75Wh)				
4x USB 3.0, SD, RJ-45, ExpressCard	Input / output	3x USB 3.0, 1x USB 2.0, SD, RJ-45				
1x DisplayPort, 1x HDMI, 1x VGA	Video ports	1x DisplayPort, 1x VGA, 1x Thunderbolt				
Up to Intel 3x3 WLAN	Wireless LAN	Intel 2x2 WLAN				
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0				
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband				
Kensington lock slot	Physical security	Kensington lock slot				
TPM	Security chips	TPM				
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader, smart card reader				
Dell Data Protection	Security software	Third party software				
Starting at 3.57 kg / 7.86 lbs	Weight	Starting at ??? kg / 7.42 lbs				
416.7 x 270.6 x 40.4 mm	Size (metric)	376.6 x 248.1 x 29.5 mm				
16.40 x 10.65 x 1.59 in	Size (US)	??? x ??? x ??? in				
Energy Star & EPEAT Gold	Environmental	Energy Star & EPEAT Gold				

### Dell Precision M6800 unique features:

World's most powerful 17" mobile workstation with ISV certification, extreme power processors, more storage options, overclock memory with Dell Reliable Memory technology, Dell Precision Optimizer and Dell ProSupport Plus



### Why Dell Precision M6800:

The world's most powerful 17" workstation with:

- Extreme Processors
- More internal storage
- Overclock memory



# Precision M4800 Mobile Workstation

The world's most powerful 15" workstation with robust features in a mobile design



Key features	Why it matters
4 <sup>th</sup> Generation Intel Core i5 and Intel Core i7 Processors with optional vPro	No task is too big. The Dell Precision M4800 Mobile Workstation delivers no-holds-barred processing capabilities with high-performance 4th Generation Intel® Core™ i7 and Intel® Core™ i5 processor options.
Powerful professional graphics with your choice of AMD FirePro or NVIDIA Quadro graphics with 2GB of GDDR5 memory	Responsive AMD FirePro™ and NVIDIA Quadro® graphics options with up to 2GB of GDDR5 memory keep pace with demanding 3D rendering and other graphics-intensive tasks.
Choose from AMD Enduro or NVIDIA Optimus technologies	Brains and brawn. Ratchet up graphics performance when you need it, and save battery power when you don't.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
Optional 15.6" UHD display	Your work will look its best on the incredibly vivid 15.6" display, available with up to UHD 3200x1800 resolution.
ISV Certification	The Dell Precision Workstations you purchase are tested to ensure the high-performance applications you rely on every day run smoothly. ISV certification is the result of precise engineering and rigorous testing to optimize performance and reliability to run leading industry applications.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Advanced Port Replicator

Simplify connections to your keyboard, mouse and up to four monitors and transfer data quickly with two USB 3.0 ports.

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### Targus 16" Drifter Backpack

The ideal combination of style and protection, this backpack features a padded laptop compartment to keep your device safe and secure

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

# Dell Precision M4800

The world’s most powerful 15” Worksta-  
tion.

The Dell Precision M4800 offers lots of  
storage with up to three separate storage  
devices and optional RAID 0, 1 and 5.

This workstation is independent software  
vendor (ISV) certified, meaning that the  
experts who made your software ensure  
that this machine will run it as intended, at  
full speed.



Lenovo ThinkPad W541



Lenovo ThinkPad W550s



HP Zbook 15 G2



Apple MacBook Pro RDP



Up to Intel® Core™ i7-4940MX	Quad Core Processor	Up to Intel® Core™ i7-4940MX		Up to Intel® Core™ i7-4910MQ	Up to 2.5GHz Intel Core i7 processor
Up to Intel® Core™ i7-4610M	Dual Core Processor	Up to Intel® Core™ i7-4600M	Up to Intel Core i7-5600U Processor	Up to Intel Core i7-4610M Processor	
Microsoft® Windows 7 & 8.1, Red Hat	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	OS X Yosemite
AMD FirePro™ M5100 2GB NVIDIA Quadro K1100M or K2100M 2GB	Discrete Graphics	NVIDIA Quadro K1100M or K2100M 2GB	NVIDIA Quadro K620 2GB	AMD FirePro™ M5100 FireGL 2GB NVIDIA Quadro K1100M or K2100M 2GB	AMD Radeon R9 M370X with 2GB
Up to 16GB 1866MHz DDR3L Up to 32GB 1600MHz DDR3L	Memory	Up to 32GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L	Up to 32GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L
15.6” HD, Full HD or UHD+ LED-backlit	Display	15.6” FHD or 15.5” 3k-IPS LED-backlit	15.6” FHD or 15.5” 3k-IPS LED-backlit	15.6” FHD or 15.6” FHD/QHD IPS LED	15.4” FHD IPS LED-backlit
N.A.	Touch option	N.A.	Optional capacitive 10 finger touch	Optional capacitive 10 finger touch	None
Up to 1TB SATA 5400 rpm HDD	Hard drive option	Up to 500GB SATA 7200 rpm HDD	Up to 500GB SATA 7200 rpm HDD	Up to 1TB SATA 7200 rpm HDD	N.A.
Up to 1TB SSD & 1TB mSATA SSD	SSD option	Up to 512GB SSD & 16GB M2 SSD	Up to 512GB SSD & 16GB M2 SSD	Up to 512GB SSD & 256GB PCIe SSD	Up to 512GB PCIe SSD
DVD, DVD+/-RW or Blu-ray Disc™ writer	Optical drive	None	None	None	None
Backlit option, dual pointing	Keyboard	Backlit option, dual pointing	Backlit option, dual pointing	Dual pointing	Backlit keyboard
6-cell (65 Wh) or 9-cell (97Wh)	Battery	6-cell (56 Wh) or 9-cell (99Wh)	3-cell (44 Wh) integrated + external	3-cell (44 Wh) integrated + secondary	95 Whr Lithium-polymer battery
4x USB 3.0, SD, RJ-45, ExpressCard	Input / output	2x USB 3.0, 2x USB 2.0, SD, RJ-45	2x USB 3.0, 2x USB 2.0, SD, RJ-45	4x USB 3.0, SD, RJ-45	2x USB 3.0, SD
1x DisplayPort, 1x HDMI, 1x VGA	Video ports	1x DisplayPort, 1x VGA, 1x Thunderbolt	1x DisplayPort, 1x VGA, 1x Thunderbolt	1x DisplayPort, 1x VGA,	1x DisplayPort, 1x HDMI, 2x Thunderbolt
Up to Intel 3x3 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0
Optional 4G LTE mobile broadband	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Kensington lock slot	Kensington lock slot
TPM	Security chips	TPM	TPM	TPM	N.A.
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option
Dell Data Protection	Security software	Third party software	Third party software	Third party software	Third party software
Starting at 2.88 kg / 6.35 lbs	Weight	Starting at 1.73 kg / 5.57 lbs	Starting at 1.93 kg / 4.78 lbs	Starting at 1.71 kg / 3.77 lbs	Starting at 2.04 kg / 4.49 lbs
376.7 x 256 x 39.9 mm	Size (metric)	376.6 x 248.1 x 29.5 mm	380.6 x 258.2 x 22.45 mm	339 x 237 x 21 mm	359 x 247 x 18 mm
14.83 x 10.08 x 1.57 in	Size (US)	13.35 x 9.15 x 0.83 in	13.3 x 9.3 x 0.9 in	13.35 x 9.33 x 0.83 in	14.13 x 9.73 x 0.71 in
Energy Star & EPEAT Gold	Environmental	Energy Star 6 & EPEAT Gold	Energy Star 6 & EPEAT Gold	Energy Star & EPEAT Gold	Energy Star 6 & EPEAT Gold

Dell Precision M4800 unique features:

World’s most powerful 15” mobile work-  
station with ISV certification extreme  
power processors, more storage options,  
overclock memory with Dell Reliable  
Memory technology, Dell Precision Opti-  
mizer and Dell ProSupport Plus



Why Dell Precision M4800:

The world’s most powerful 15” workstation  
with:

- Overclock memory
- Higher screen resolution
- More storage

Why Dell Precision M4800:

The world’s most powerful 15” workstation  
with:

Better compares to Dell Precision M3800

Why Dell Precision M4800:

The world’s most powerful 15” workstation  
with:

- Extreme power processor
- Higher Resolution
- Overclock memory

Why Dell Precision M4800:

The world’s most powerful 15” workstation  
with:

- Extreme power processor
- Higher Resolution
- Overclock memory

# Precision M3800 Mobile Workstation

The world's thinnest and lightest 15" mobile Workstation with the performance your creations need



Key features	Why it matters
The world's thinnest and lightest 15" 4.1lbs and 18mm thin	Large projects are easier than ever to carry anywhere. The Dell Precision M3800 is super thin and lightweight, yet offers full-blown Workstation performance — all packed into a carbon fiber and aluminum design you'll be proud to carry.
Premium materials including carbon fiber, Corning Gorilla Glass, and aluminum	Form follows function when cutting edge materials combine to realize real-world advantages like lightweight portability, increased structural rigidity, and cool to the touch surfaces.
Best screen quality with up to UHD 4K resolution and over 8M pixels (3M more pixels than Retina)	View, create and edit your work in perfect clarity on the new, optional 4K Ultra HD display that offers a whole new level of eye-popping detail with over 8 million pixels — that's three million more pixels than a Retina display.
4 <sup>th</sup> Generation Intel Core i7 Processors	4th gen Intel® Core™ i7 processors provide the power to extract maximum performance from the demanding professional software you rely on to do your job.
Professional graphics NVIDIA Quadro K1100M	From rendering to complex modeling, you'll notice an incredible performance boost thanks to NVIDIA® Quadro K1100M graphics with 2GB memory.
Touch display – 10 point	Pinch, drag and swipe your way through applications like Adobe Creative Cloud with 10-finger touch capability that enables a new, immersive way to interact with your Workstation. Touch displays help you create and present in imaginative ways.
Up to 2TB SSD storage	Easily store, transfer and access large and complex 3D, multimedia and video project files with the speed and reliability of up to 2TB of solid state drive technology.

## Recommended Accessories

### Dell UltraSharp 32" Ultra HD Monitor with Premier Color - UP3214Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Super Speed USB3.0 Docking Station - D3000

Easily connect your Workstation to the devices at your desk with support for triple display output and Ultra HD (4K2K) monitors

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### Targus 16" Drifter Backpack

The ideal combination of style and protection, this backpack features a padded laptop compartment to keep your device safe and secure

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation



# Dell Precision M3800

The lightest, thinnest 15" workstation ever.

Edit video or photography at the shoot, present your CAD ideas to customers in style, or render 3D animation and modeling on the road.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Up to Intel® Core™ i7-4712HQ	Quad Core Processor	Up to Intel® Core™ i7-4940MX				Up to 2.5GHz Intel Core i7 processor
	Dual Core Processor	Up to Intel® Core™ i7-4600M		Up to Intel Core i7-5600U Processor	Up to Intel Core i7-5600U Processor	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1		Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	OS X Yosemite
Nvidia® Quadro® K1100M 2GB	Discrete Graphics	NVIDIA Quadro K1100M or K2100M 2GB		NVIDIA Quadro K620 2GB	AMD FirePro™ M4150 FireGL 1GB	AMD Radeon R9 M370X with 2GB
Up to 16GB 1600MHz DDR3L	Memory	Up to 32GB 1600MHz DDR3L		Up to 16GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L
15.6" FHD or UHD LED-backlit	Display	15.6" FHD or 15.5" 3k-IPS LED-backlit		15.6" FHD or 15.5" 3k-IPS LED-backlit	14.0" HD or 14.0" FHD IPS LED-backlit	15.4" FHD IPS LED-backlit
10 finger touch with UHD panel	Touch option	N.A.		Optional capacitive 10 finger touch	Optional capacitive 10 finger touch	None
Up to 1TB SATA 5400 rpm HDD	Hard drive option	Up to 500GB SATA 7200 rpm HDD		Up to 500GB SATA 7200 rpm HDD	Up to 1TB SATA 7200 rpm HDD	N.A.
Up to 1TB SSD & 1TB mSATA SSD	SSD option	Up to 512GB SSD & 16GB M2 SSD		Up to 512GB SSD & 16GB M2 SSD	Up to 512GB SSD & 256GB PCIe SSD	Up to 512GB PCIe SSD
DVD or DVD+/-RW	Optical drive	None		None	None	None
Backlit option, dual pointing	Keyboard	Backlit option, dual pointing		Backlit option, dual pointing	Dual pointing	Backlit keyboard
6-cell (65 Wh) or 9-cell (97Wh)	Battery	6-cell (56 Wh) or 9-cell (99Wh)		3-cell (44 Wh) integrated + external	3-cell (44 Wh) integrated + secondary	95 Whr Lithium-polymer battery
3x USB 3.0, 1x USB 2.0, SD, RJ-45	Input / output	2x USB 3.0, 2x USB 2.0, SD, RJ-45		2x USB 3.0, 2x USB 2.0, SD, RJ-45	4x USB 3.0, SD, RJ-45	2x USB 3.0, SD
1x HDMI, 1x Thunderbolt/mDP	Video ports	1x DisplayPort, 1x VGA, 1x Thunderbolt		1x DisplayPort, 1x VGA, 1x Thunderbolt	1x DisplayPort, 1x VGA,	1x DisplayPort, 1x HDMI, 2x Thunderbolt
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN		Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0		Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0
None	Mobile Broadband	Optional 4G mobile broadband		Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G mobile broadband
Kensington lock slot	Physical security	Kensington lock slot		Kensington lock slot	Kensington lock slot	Kensington lock slot
TPM	Security chips	TPM		TPM	TPM	N.A.
None	Authentication factors	Fingerprint reader, smart card reader option		Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option
Dell Data Protection   Encryption	Security software	Third party software		Third party software	Third party software	Third party software
Starting at 2.53 kg / 5.57 lbs	Weight	Starting at 1.73 kg / 5.57 lbs		Starting at 1.93 kg / 4.78 lbs	Starting at 1.71 kg / 3.77 lbs	Starting at 2.04 kg / 4.49 lbs
372 x 254 x 18 mm	Size (metric)	376.6 x 248.1 x 29.5 mm		380.6 x 258.2 x 22.45 mm	339 x 237 x 21 mm	359 x 247 x 18 mm
14.65 x 10 x 0.71 in	Size (US)	13.35 x 9.15 x 0.83 in		13.3 x 9.3 x 0.9 in	13.35 x 9.33 x 0.83 in	14.13 x 9.73 x 0.71 in
Energy Star 6 & EPEAT Gold	Environmental	January 2015		January 2015	January 2015	2015

### Dell Precision M3800 unique features:

The Dell Precision M3800 is the thinnest and lightest workstation in the world, ISV certification, Dell Precision Optimizer, Pro-Support Plus and better graphics, storage and processing options.



### Why Dell Precision M3800:

The thinnest and lightest mobile workstation with:

### Why Dell Precision M3800:

The thinnest and lightest mobile workstation with:

- Higher resolution touch display
- Longer battery life
- Dell Precision Optimizer

Better compares to Dell Precision M4800

### Why Dell Precision M3800:

The thinnest and lightest mobile workstation with:

- Higher resolution touch display
- Longer battery life
- Dell Precision Optimizer

### Why Dell Precision M3800:

The thinnest and lightest mobile workstation with:

- Higher resolution touch display
- More storage
- Dell Precision Optimizer



# Precision M2800 Mobile Workstation

Upgrade to workstation performance. Professional power. Budget intact



Key features	Why it matters
Dell's most affordable mobile workstation	Removing cost-barriers for workstation-class performance, ISV certification & mission-critical reliability. Also maximize your software investment by getting the best performance from your software with better graphics, storage and processing options.
Professional grade AMD FirePro Graphics 2GB of dedicated video memory	AMD FirePro W4170M Graphics is certified by ISV's and offer superior performance for running professional applications over a comparable consumer graphics card. AMD Graphics card also offers superior price/performance over a comparable NVIDIA Entry Graphics card.
4 <sup>th</sup> Generation Intel Core i5 and i7 Processors	Latest Intel Haswell processors options deliver outstanding price performance for workstation applications
High-performance storage	Choice of upto 512GB SSD storage or upto 1TB 7200 RPM SATA drive to cater to customers storage requirements
Ramped up RAM with up to 16GB 1600MHz DDR3 memory	Support for upto 16GB 1600Mhz DDR3 NECC memory for superior performance.
Dell Precision Optimizer	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
ISV Certifications	The Dell Precision Workstations you purchase are tested to ensure the high-performance applications you rely on every day run smoothly. ISV certification is the result of precise engineering and rigorous testing to optimize performance and reliability to run leading industry applications.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Advanced Port Replicator

Simplify connections to your keyboard, mouse and up to four monitors and transfer data quickly with two USB 3.0 ports

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### Targus 16" Drifter Backpack

The ideal combination of style and protection, this backpack features a padded laptop compartment to keep your device safe and secure

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation



# Dell Precision M2800

Never before has mobile workstation performance been so affordable.

The Dell Precision M2800 workstation can make the architecture, engineering and 3D design applications you already use run at their fullest potential.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Up to Intel® Core™ i7-4810MQ	Quad Core Processor	Up to Intel® Core™ i7-4940MX			
Up to Intel® Core™ i7-4610M	Dual Core Processor	Up to Intel® Core™ i7-4600M	Up to Intel Core i7-5600U Processor	Up to Intel Core i7-5600U Processor	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1	
AMD FirePro W4170M 2GB	Discrete Graphics	NVIDIA Quadro K1100M or K2100M 2GB	NVIDIA Quadro K620 2GB	AMD FirePro™ M4150 FireGL 1GB	
Up to 16GB 1600MHz DDR3L	Memory	Up to 32GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L	Up to 16GB 1600MHz DDR3L	
15.6" HD or Full HD LED-backlit	Display	15.6" FHD or 15.5" 3k-IPS LED-backlit	15.6" FHD or 15.5" 3k-IPS LED-backlit	14.0" HD or 14.0" FHD IPS LED-backlit	
N.A.	Touch option	N.A.	Optional capacitive 10 finger touch	Optional capacitive 10 finger touch	
Up to 1TB SATA 7200 rpm HDD	Hard drive option	Up to 500GB SATA 7200 rpm HDD	Up to 500GB SATA 7200 rpm HDD	Up to 1TB SATA 7200 rpm HDD	
Up to 360GB SSD & 256GB mSATA SSD	SSD option	Up to 512GB SSD & 16GB M2 SSD	Up to 512GB SSD & 16GB M2 SSD	Up to 512GB SSD & 256GB PCIe SSD	
DVD or DVD+/-RW	Optical drive	None	None	None	
Backlit option, dual pointing	Keyboard	Backlit option, dual pointing	Backlit option, dual pointing	Dual pointing	
6-cell (65 Wh) or 9-cell (97Wh)	Battery	6-cell (56 Wh) or 9-cell (99Wh)	3-cell (44 Wh) integrated + external	3-cell (44 Wh) integrated + secondary	
4x USB 3.0, SD, RJ-45	Input / output	2x USB 3.0, 2x USB 2.0, SD, RJ-45	2x USB 3.0, 2x USB 2.0, SD, RJ-45	4x USB 3.0, SD, RJ-45	
1x HDMI, 1x VGA	Video ports	1x DisplayPort, 1x VGA, 1x Thunderbolt	1x DisplayPort, 1x VGA, 1x Thunderbolt	1x DisplayPort, 1x VGA,	
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Intel 2x2 WLAN	
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0	
Optional 4G LTE mobile broadband*	Mobile Broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	Optional 4G mobile broadband	
Kensington lock slot	Physical security	Kensington lock slot	Kensington lock slot	Kensington lock slot	
TPM	Security chips	TPM	TPM	TPM	
Fingerprint, smart card, contactless smart card reader	Authentication factors	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option	Fingerprint reader, smart card reader option	
Dell Data Protection   Encryption	Security software	Third party software	Third party software	Third party software	
Starting at 2.56 kg / 5.64 lbs	Weight	Starting at 1.73 kg / 5.57 lbs	Starting at 1.93 kg / 4.78 lbs	Starting at 1.71 kg / 3.77 lbs	
379 x 250.5 x 33.4 mm	Size (metric)	376.6 x 248.1 x 29.5 mm	380.6 x 258.2 x 22.45 mm	339 x 237 x 21 mm	
14.92 x 9.86 x 1.31 in	Size (US)	13.35 x 9.15 x 0.83 in	13.3 x 9.3 x 0.9 in	13.35 x 9.33 x 0.83 in	
Energy Star 6 & EPEAT Gold	Environmental	January 2015	January 2015	January 2015	

### Dell Precision M2800 unique features:

Workstation performance at about the price of a laptop, ISV certification, Dell Precision Optimizer, ProSupport Plus and better graphics, storage and processing options.



\* in Select Countries only

### Why Dell Precision M2800:

Offers better price for performance:

- Professional graphics
- Lighter form factor
- Dell Precision Optimizer

### Why Dell Precision M2800:

Offers better price for performance:

- High Performance processors
- Thunderbolt option
- Dell Precision Optimizer

### Why Dell Precision M2800:

Offers better price for performance:

- High performance processors
- Dell Pro Support Plus
- Dell Precision Optimizer

XPS



# Dell Ultrabooks™

## Latitude 7000 Series

Business-class Ultrabook™



The world's most secure, manageable and reliable business-class Ultrabook™ for elite mobile productivity.

## XPS 13

Smallest 13-inch on the planet



The smallest 13-inch laptop. An elite mobile device constructed of premium materials with best-in-class security and full manageability.

## When to position XPS 13 vs. Latitude 7000 Series by use case

### XPS 13 is best for:

- Those who want the smallest, thinnest, lightest, most aggressive form factor
- A sleek Ultrabook™ made of premium materials like machined aluminum, carbon fiber and edge-to-edge glass
- Anyone considering the Apple MacBook Air 11 or 13
- Higher resolution display (QHD+)
- Ultra-mobility AND full business productivity

### Latitude 12 7000 series is best for:

- Integrated hardware security features
- Latitude E-family docking, full access and replaceable parts, WiGig & 4G mobile broadband connectivity
- Dell Latitude stability, long-lifecycle and managed transitions

### Latitude 13 7000 series 2-in-1 is best for:

- Anyone who plans to use device primarily as a professional laptop most of the time; tablet some of the time
- Anyone who wants replace their laptop and tablet with one single professional device without compromise to either experience
- Optimal touch experience with tablet mode
- The world's most secure 2-in-1 with Dell Data Protection | Encryption and Dell ControlVault™
- Tablet or USB 3.0 docking, full access and replaceable parts, WiGig (post launch) & 4G mobile broadband connectivity



XPS 13



Latitude 12 7000



Latitude 13 7000 2-in-1



# XPS

## Form and function without compromise



XPS 15

Over 8 million reasons to love this powerful 15-inch laptop. Powerhouse performance with stunning 4K Ultra HD display



XPS 13

The smallest 13-inch laptop. An elite mobile device constructed of premium materials with best-in-class security and full manageability.

The Dell XPS 13 is Dell's best-reviewed consumer product in recent memory with more than 250 excellent reviews and more than 70 awards globally.



Dell's New XPS 13 Laptop Makes Me Seriously Regret My MacBook Air Purchase - Jason Evangelho, Forbes  
"The MacBook Air Meets its Match" - Geoffrey Fowler, Wall Street Journal  
"In short, the Dell XPS 13 is the **best 13-inch notebook** available today." - Digital Trends  
"...the one to beat." - Nathaniel Wice, Barron's  
"Dell's **insanely thin** XPS 13 laptop will wow you." - PC World

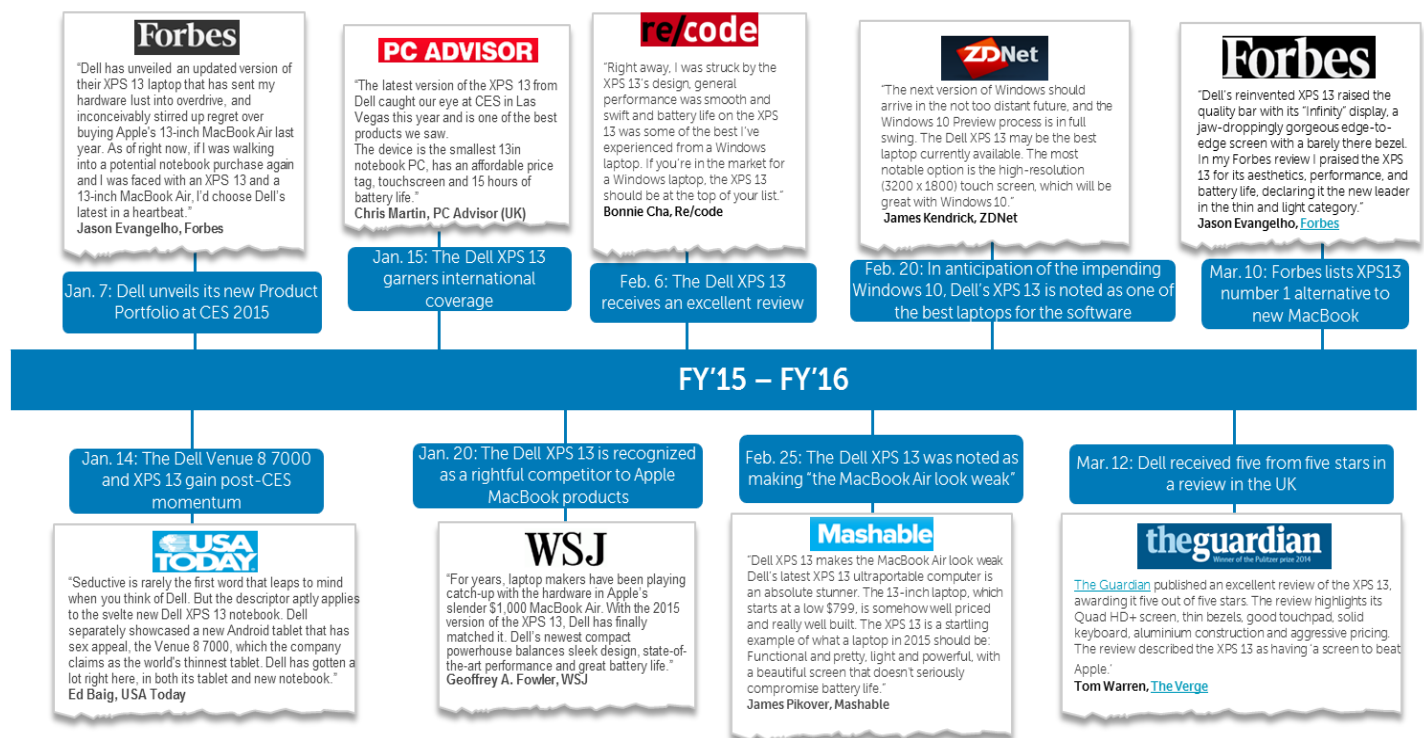
### XPS 13 Highlights

224 global excellent reviews and awards to date

28 CES 2015 Awards

371M social reach to date

67,886 social posts to date



# XPS 13

The world's smallest 13" laptop with the world's first virtually borderless InfinityEdge display - amazing both inside and out.



XPS 13 key features	Why it matters
Only InfinityEdge display on a 13-inch	Smallest 13-inch laptop on the planet enabled by 5.2mm borders; 11-inch size, and only 15mm thin, starting at 2.6lbs
UltraSharp™ Quad HD+ (3200 x 1800) InfinityEdge touch display	Stunning detail, rich and accurate color (72% color gamut, 1000:1 contrast ratio), bright display for using in outdoor light (400-nit), view from every angle (IPS)
Over 15 hours* on Full HD non-touch and over 11 hour*s on QHD+ plus up to 7 additional hours* with the Dell Power Companion	Stay unplugged longer on the go.
5 <sup>th</sup> gen Intel up to i7, solid state drives	Higher performance. Small size, big performance. Intel processors up to Core i7 to smoothly run all your programs and apps. Boot and resume in seconds with solid state drives.
Backlit keyboard and precision touchpad	Keyboard illuminates for use in low light and no light situations Precision touchpad works flawlessly. No jumping/floating cursors.
Machined aluminum, carbon fiber, Corning® Gorilla Glass NBT™	Superior materials and build quality – durable and stunning

## Recommended Accessories

### Mobile essential accessories for your XPS 13

Enhance the mobility of your XPS 13 with accessories that can help you stay powered up, connected, and protected on the go.

#### Dell Premier Sleeve (S)

Protect your XPS 13 on the go with a sleek, custom-fitted sleeve to use alone or inside a case.

#### Dell Adapter - USB to HDMI/VGA/Ethernet/USB 2.0

Connect to Projectors, TV's, and Ethernet without the burden of carrying multiple dongles using the ultra portable adapter.

#### Dell Power Companion (12,000 mAh) - PW7015L

Power and charge your XPS 13 along with your phone and tablet while you are on the go with the Dell Power Companion.

#### Dell Premier Backpack (M)

Keep accessories, tablets, and notebooks organized and secure with the Dell Premier Backpack with features specifically designed for Dell accessories.

### Work essentials to maximize your office productivity

Maximize the performance of your XPS 13 with the ultimate work accessories that can help you increase your productivity in the office.

#### Dell Docking Station – USB 3.0

Connect up to three displays– one Ultra HD 4K and two traditional - and up to five other peripheral devices with this high-performance featuring SuperSpeed™ USB 3.0.

#### Dell UltraSharp 32 Ultra HD Monitor – UP3214Q

Get four times the resolution of Full HD and view a new level of clarity and detail with the Dell UltraSharp™ 32 Ultra HD Monitor UP3214Q with Ultra HD 4K resolution.

#### Dell Wireless Keyboard and Mouse Combo - KM714

Expand your productivity and keep your desk clutter-free with this combo that includes a number pad and LED precision tracking.



# Dell XPS 13

## Erase borders, starting with the display.

The XPS 13 isn't just the smallest 13-inch laptop on the planet, it also has the world's first virtually borderless infinity display with optional touch

"The smallest 13-inch on the planet in a package size of a typical 11-inch laptop including its exclusive infinity display and carbon fiber and aluminum enclosure."  
— CES



Lenovo X1 Carbon	HP EliteBook 1040 G2
------------------	----------------------



5th generation Intel® Core™ i3, i5 or i7	Processor	5th generation Intel® Core™ i5 or i7	5th generation Intel® Core™ i5 or i7
Microsoft® Windows 8.1	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Linux
Intel HD Graphics 5500	Graphics	Intel HD Graphics 5500	Intel HD Graphics 5500
Up to 8 GB DDR3L memory	Memory	Up to 8 GB DDR3L memory (2 DIMM)	Up to 8 GB DDR3L memory (1 DIMM)
13.3" Full HD or QHD+ infinity display	Display	14" WQHD (2560x1440) or Full HD	14" HD+ (1600x900) or Full HD
Touch with Ultrasharp QHD+ display	Touch option	Touch with WQHD IPS panel	N.A.
N.A.	Hard drive option	N.A.	N.A.
Up to 512GB SSD	SSD option	Up to 512GB SSD	Up to 512GB SSD
None	Optical drive	None	None
Backlit	Keyboard	Backlit	Backlit
Up to 15 hours battery life	Battery life	Up to 10.8 hours battery life	Information not available
2x USB 3.0, SD	Input / output	2x USB 3.0	2x USB 3.0, mSD, RJ-45 with dongle
1x mini DisplayPort	Video ports	1x mini DisplayPort, 1x HDMI	1x DisplayPort
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	WLAN
Bluetooth 4.0	Wireless connectivity	Bluetooth 4.0	Bluetooth 4.0, NFC
N.A.	Mobile Broadband	Optional 4G mobile broadband	Optional 4G LTE mobile broadband
Kensington lock slot	Physical security	Kensington lock slot	Information not available
TPM	Security chips	TPM	TPM
N.A.	Authentication factors	Fingerprint reader	Fingerprint reader, smart card reader
Dell Data Protection   Encryption	Security software	No encryption software	Full volume encryption
Starting at 1.18 kg / 2.6 lbs	Weight	Starting at 1.306 kg / 2.88 lbs	Starting at 1.51 kg / 3.32 lbs
334.9 x 231.1 x 22.8 mm	Size (metric)	338 x 233 x 15.6 mm	338 x 233 x 15.9 mm
13.2 x 9.1 x 0.9 in	Size (US)	13.31 x 9.19 x 0.63 in	13.31 x 9.19 x 0.63 in
January 2015	Launch date	January 2015	January 2015

### Dell XPS 13 unique features:

Stunning UltraSharp™ QHD+ resolution (3200x1800) option that gives you 5.7 million pixels (276 ppi).

At 400-nit, it's up to 100% brighter than a typical panel (200-nit) for a great view even outside.

Smallest 13-inch; the Dell XPS 13 fits a 13-inch display into the size of an 11-inch laptop.



### Why Dell XPS 13:

In the thin and light category, the Dell XPS 13 is smaller and lighter than Lenovo X1 Carbon.

- Infinity display
- Thinner and lighter
- Machined aluminum and woven carbon fiber

### Why Dell XPS 13:

In the thin and light category, the Dell XPS 13 is smaller and lighter than HP EliteBook 1040 G2.

- Infinity display
- High resolution display
- Touch option
- Thinner and lighter
- Machined aluminum and woven carbon fiber





# XPS 15

The flagship XPS laptop, the XPS 15 delivers incredible power in a stunningly thin and light wedge design. The brilliant UltraSharp™ 4K Ultra HD display provides a brilliant viewing experience and high performance fuels creation.



XPS 15 key features	Why it matters
UltraSharp™ 4K Ultra HD (3840 x 2160) touch display	Stunning detail and brilliant viewing experience with over 8 million pixels, bright display for using in outdoor light (400-nit), view from every angle (IPS)
4th gen Intel up to i7 Quad Core, NVIDIA® graphics, memory up to 16GB	Powerhouse performance. Quad Core processors and faster memory to speed through the most intense applications.
Up to 1TB + 32GB SSD	Massive storage, plus the responsiveness of solid state drives
Up to 11 hours battery life	Stay unplugged longer on the go.
Machined aluminum, carbon fiber, Corning® Gorilla Glass NBT™	Superior materials and build quality – durable and stunning

## Recommended Accessories

### Mobile essential accessories for your XPS 15

Enhance the mobility of your XPS 15 with accessories that can help you stay powered up, connected, and protected on the go.

#### Dell Premier Sleeve (L)

Protect your XPS 15 on the go with a sleek, custom-fitted sleeve to use alone or inside a case.

#### Dell Adapter - USB to HDMI/VGA/Ethernet/USB 2.0

Connect to Projectors, TV's, and Ethernet without the burden of carrying multiple dongles using the ultra portable adapter.

#### Dell Premier Backpack (M)

Keep accessories, tablets, and notebooks organized and secure with the Dell Premier Backpack with features specifically designed for Dell accessories.

#### Dell Power Adapter – 130W

Be prepared with a second adapter for your XPS- one for the office and one for home or travel.

### Work essentials to maximize your office productivity

Maximize the performance of your XPS 15 with the ultimate work accessories that can help you increase your productivity in the office.

#### Dell Docking Station – USB 3.0

Connect up to three displays– one Ultra HD 4K and two traditional - and up to five other peripheral devices with this high-performance featuring SuperSpeed™ USB 3.0.

#### Dell UltraSharp 32 Ultra HD Monitor – UP3214Q

Get four times the resolution of Full HD and view a new level of clarity and detail with the Dell UltraSharp™ 32 Ultra HD Monitor UP3214Q with Ultra HD 4K resolution.

#### Dell Wireless Keyboard and Mouse Combo - KM714

Expand your productivity and keep your desk clutter-free with this combo that includes a number pad and LED precision tracking.





Vostro



# Vostro 14 & 15 3000 Series

Vostro's entry-level laptop in 14" and 15" form factor. Available in black and metallic red with micro-stripe textured pattern, it's practical and classic. These are tailor-made for small business owners and professionals with essential business features that help getting the job done easier.



## Vostro models' 3458/3459/3558/3559 key features:

- Featuring Intel® 5th and 6th generation processors
- Up to 2GB memory, discrete graphics
- Thinner design at 23.3 mm thin for 14" and 23.7 mm for 15"
- Anti-Glare HD display (1366x768)
- Full HD option on 15"
- Up to 16GB memory, 1TB HDD option
- Faster speed with wireless 802.11ac
- Outstanding battery life with up to 9 hr 3 mins on the 14" and up to 8 hr 42 mins on the 15" (tested on Windows 8.1, based on 3458 and 3558 models)
- Business features: VGA output, Optical Drive, Gigabit Ethernet, HD Webcam and Waves MaxxAudio® Pro Software for conference calls
- Choice of Windows 10, 8.1 or Ubuntu

## Recommended Accessories

### Dell Bluetooth Portable Speaker - AD211

Take your sound anywhere with a compact and portable wireless speaker that features a long-lasting rechargeable battery, Bluetooth 4.0 and NFC technologies.

### Dell Urban 2.0 Topload Carrying Case - 15.6"

Be prepared for wherever your day takes you with a comfortable, lightweight and stylish bag that fits laptops with up to 15.6" displays.

### Dell Energy 2.0 Backpack – 15.6"

Protect your notebook with a durable, yet lightweight backpack made of water-resistant fabric that offers three sizeable compartments with a dedicated padded notebook section that fits laptops with up to 15.6" displays.

### Dell Slipcase - 14"

Protect your system with this slim, lightweight slipcase that features weather-resistant nylon construction, a non-slip bottom and retractable handles.

### Dell Slipcase - 15"

Protect your system with this slim, lightweight slipcase that features weather-resistant nylon construction, a non-slip bottom and retractable handles.

### Dell Optical Wireless Mouse - WM123

The small size, wireless performance and excellent battery life make this mouse a great option for on-the-go users.

### Dell Portable Backup Hard Drive- 1 TB

Portable hard drive makes it easy to backup, store and transfer photos, videos, music and more. Automatic backup software comes preinstalled.



# Vostro 14 3000 Series

Vostro's entry-level laptop in 14" form factor. Available in gray and red with a textured wave pattern, it's practical and classic. These laptops are tailor-made for small business owners and professionals with essential business features that help getting the job done easier.



## Vostro models' 3445/3446/3449 key features:

- Flexible processor options: AMD, Intel® 4th and 5th Generation processors
- 2GB NVidia discrete graphics
- 25.4mm thin and ~2.2kg
- 14" Anti-Glare HD display (1366x768 resolution)
- Up to 4GB memory, 1TB HDD storage
- Connectivity: 3 USB ports, SD Card reader
- Business features: VGA output, Optical Drive, Gigabit Ethernet
- HD Webcam and Waves MaxxAudio® software for conference calls
- Choice of Windows 10, 8.1 or Ubuntu

## Recommended Accessories

### Dell Bluetooth Portable Speaker - AD211

Take your sound anywhere with a compact and portable wireless speaker that features a long-lasting rechargeable battery, Bluetooth 4.0 and NFC technologies.

### Dell Urban 2.0 Topload Carrying Case - 15.6"

Be prepared for wherever your day takes you with a comfortable, lightweight and stylish bag that fits laptops with up to 15.6" displays.

### Dell Energy 2.0 Backpack – 15.6"

Protect your notebook with a durable, yet lightweight backpack made of water-resistant fabric that offers three sizeable compartments with a dedicated padded note section that fits laptops with up to 15.6" displays.

### Dell Slipcase - 14"

Protect your system with this slim, lightweight slipcase that features weather-resistant nylon construction, a non-slip bottom and retractable handles.

### Dell Optical Wireless Mouse - WM123

The small size, wireless performance and excellent battery life make this mouse a great option for on-the-go users.

### Dell Portable Backup Hard Drive - 1 TB

Portable hard drive makes it easy to backup, store and transfer photos, videos, music and more. Automatic backup software comes preinstalled.



# Vostro 15 3000 Series

Vostro's entry-level laptop in 15" form factor. Available in gray and red with a textured wave pattern. These laptops are tailor-made for small business owners and professionals with essential business features that help getting the job done easier.



## Vostro models' 3546/3549 key features:

- Featuring Intel® 4th and 5th generation processors
- 2GB NVidia 820M discrete graphics
- 25.4mm thin and starting weight at ~2.4kg
- 15.6" Anti-Glare HD display (1366x768 resolution)
- Up to 4GB memory, 1TB HDD storage
- Connectivity: 3 USB ports, SD Card reader
- Business features: VGA output, Optical Drive, Gigabit Ethernet
- HD Webcam and Waves MaxxAudio® software for conference calls
- Choice of Windows 10, 8.1 or Ubuntu

## Recommended Accessories

### Dell Bluetooth Portable Speaker - AD211

Take your sound anywhere with a compact and portable wireless speaker that features a long-lasting rechargeable battery, Bluetooth 4.0 and NFC technologies.

### Dell Urban 2.0 Topload Carrying Case - 15.6"

Be prepared for wherever your day takes you with a comfortable, lightweight and stylish bag that fits laptops with up to 15.6" displays.

### Dell Energy 2.0 Backpack – 15.6"

Protect your notebook with a durable, yet lightweight backpack made of water-resistant fabric that offers three sizeable compartments with a dedicated padded notebook section that fits laptops with up to 15.6" displays.

### Dell Slipcase - 15"

Protect your system with this slim, lightweight slipcase that features weather-resistant nylon construction, a non-slip bottom and retractable handles.

### Dell Optical Wireless Mouse - WM123

The small size, wireless performance and excellent battery life make this mouse a great option for on-the-go users.

### Dell Portable Backup Hard Drive - 1 TB

Portable hard drive makes it easy to backup, store and transfer photos, videos, music and more. Automatic backup software comes preinstalled.





Currently Shipping

# Desktop Productivity



# Dell commercial desktop portfolio

## Currently shipping portfolio

### OptiPlex (current gen)

OptiPlex 9030 All-in-One

OptiPlex 9020

OptiPlex XE2 MT/SFF

OptiPlex 7020 MT, SFF

OptiPlex 3030 All-in-One

OptiPlex 3020 MT/SFF/MFF

### Precision (current-gen)

Precision Rack 7910 Workstation

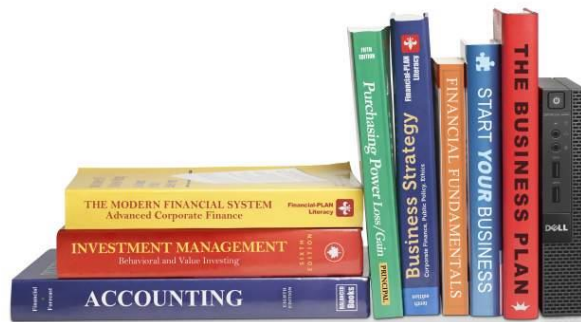
Precision Tower 7910 Workstation

Precision Tower 7810 Workstation

Precision Tower 5810 Workstation

Precision T1700 Workstation (MT/SFF)

# OptiPlex



# Dell OptiPlex: the world's most secure, manageable and reliable commercial desktops

Services + Products + Software + Accessories

## OptiPlex 3020 and 3030 All-in-One



Great customer value through essential performance and best-in-class security.

## OptiPlex 7020



Feature rich for advanced performance, security, energy efficiency and remote management.

## OptiPlex 9020, 9030 All-in-One and XE2



Excellent performance, security, manageability and reliability in an environmentally friendly design.

Essential

Mainstream

Premium & Specialty

## OptiPlex: Huge benefits to replacing a 5-year-old desktop

- Delivers up to 2.4x (+145%) better system performance<sup>1</sup>
- Reduce IT labor time by 97% for out of band management with Intel® vPro™<sup>1</sup>
- 60% lower power consumption<sup>1</sup>
- More connectivity options supporting up to 10x faster data transfer speeds<sup>1</sup>
- Graphics with 6 times the processing speed in frames per second<sup>2</sup>
- Up to 4 times more memory capacity<sup>3</sup>
- Double the storage capacity<sup>4</sup>



- **OptiPlex 9020 Micro PC** is 67% smaller than Dell's smallest commercial desktop
- Micro desktops could save 7,708 sq. ft. of valuable workspace when replacing 10,000 legacy desktops<sup>1</sup>



- **OptiPlex 9030 All-in-One** requires 59% less square inches of workspace than legacy desktops<sup>1</sup>
- Touchscreen productivity of one minute per day can payback its added cost in under 20 months<sup>1</sup>



# Which form factor is right for you?

		MT	SFF	MFF	AIO	
9 Series	Advanced Manageability Highest Security Premium Performance Greatest Expandability Eco-Friendly (Micro)	<ul style="list-style-type: none"> <li>• <b>Max Expandability</b></li> <li>• <b>Highest Performance</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Advanced Performance</b></li> <li>• <b>Balanced Expandability</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Modular Space Saving</b></li> <li>• <b>Flexible Deployment</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Integrated Space Saving</b></li> <li>• <b>Fastest Deployment</b></li> </ul>	Price ↑
7 Series	Advanced Manageability Advanced Security Mainstream Performance Greatest Expandability	<ul style="list-style-type: none"> <li>• <b>Direct Access Serviceability</b></li> <li>• <b>Good Space Saving</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Better Space Saving</b></li> <li>• <b>Flexible Deployment</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Basic Performance</b></li> <li>• <b>Minimum Service</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Most Collaborative</b></li> <li>• <b>Ease of Service</b></li> </ul>	
3 Series	Advanced Manageability Business Security Entry Performance Basic Expandability	<ul style="list-style-type: none"> <li>• <b>Flexible Deployment</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Ease of Service</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simplified Expandability</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Advanced Performance</b></li> <li>• <b>Simplified Expandability</b></li> </ul>	

## Why choose an all-in-one?

### Space-saving design

**Room for more**  
Keep your desk sleek with our thinnest 23" and 19.5" commercial desktops or attach them using a VESA wall mount. Eliminate clutter with 1-cord setup.

### Adjust your display easily

Pivot  
90°

Tilt  
Forward -5° to back 30°

Rotate  
360°

View and share content with ease.

### Deploy quickly

- 1 Open the box.
- 2 Attach the stand.
- 3 Plug it in.

And you are ready to go!

### Why an all-in-one desktop?

**Simplify business. Empower users.**

Go clutter-free without sacrificing performance, with the touch-enabled OptiPlex 9030 and 3030 All-in-Ones (AIO).

### Access effortlessly

**Quick release**

**Ports within reach**  
Meet more needs with multiple USB ports, DisplayPort and HDMI.

**Simple to upgrade components**  
Remove backing for easy, tool-less access to all hardware.

### Work the way you prefer

**Multiple monitors**  
See it all by adding more monitors for a dual or triple display setup.

**Convenient in places like**

Kiosks
Libraries/Classrooms
Warehouses
Call Centers
Hospitals
Labs

To learn more, contact your sales representative.

Some features and accessories vary per AIO model.

# Dell OptiPlex desktops

## Built for Business

Designed to meet the evolving needs of our customers, Dell's OptiPlex desktops are the most secure, manageable, and reliable commercial desktops on the market. Long, managed lifecycles and transitions, easy serviceability and extensive testing ensure a consistent, reliable end-user experience.

Customize your OptiPlex fleet with best-in-class productivity, security, and manageability features that compliment Dell's commitment to environmentally conscious design and energy efficiency.

## Highly secure

Safeguard your data with Dell Data Protection (DDP) solutions for encryption, authentication and malware-prevention, available on all OptiPlex systems.

## Smart manageability

Make life easy for IT and help your workforce get more out of each day with our latest lineup of highly manageable, powerful OptiPlex desktops.

Take control with the OptiPlex 9020 — the world's most manageable desktop — featuring Intel® vPro™ and Dell's unique management extensions.

Help save time and money with easy-to-use systems management appliances and Dell Command Suite.

## Outstanding reliability

Built with premium materials and easily serviceable parts, OptiPlex desktops are extensively tested for durability and offer a smart, long-lasting investment.

Work through years of heavy use with desktops that are subjected to highly accelerated life testing.



## Dell has it. HP and Lenovo do not.

### Most Secure

Only Dell offers comprehensive encryption, advanced authentication and malware prevention from a single source, so you can protect data from the device to the cloud.

	Dell OptiPlex	HP EliteDesk	Lenovo ThinkCentre
TCG-certified TPM for data protection and secure credential storage .....	✓	✗	✗
DDP   Security Tools – enables central management of advanced authentication .....	✓	✗	✗
DDP   Encryption (optional) – protect data on any device, external media and in the cloud .....	✓	✗	✗

### Most Manageable

OptiPlex supports Intel® vPro and Dell unique vPro extensions for updating your entire fleet of commercial PCs at once, even if they're powered off.

Best-in-class integration into Microsoft System Center and Dell KACE appliances .....	✓	✗	✗
Faster deployments and lifecycle support with Dell Configuration & Deployment Services .....	✓	✗	✗
Dell's Client Command Suite offers streamlined management with free automation tools .....	✓	✗	✗

### Most Reliable

Dell OptiPlex long lifecycles and managed transitions ensure long-term stability that help organizations save time and money.

Dell ProSupport™ Plus provides 24x7 proactive, predictive and live technical support via Dell highly trained support staff .....	✓	✗	✗
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# Dell OptiPlex 9030 All-in-One

Dell's thinnest commercial all-in-one desktop delivers maximum performance and superior security features.



Key features	Why it matters
Thin 23" Full HD 1920x1080 resolution, WLED screen with optional touch, and support for up to 3 displays	Vibrant 23" display and an optional capacitive touch screen with edge-to-edge glass. Navigate between applications with the intuitive touch of a finger, or add a dual monitor for effortless multi-tasking. Built-in VESA mounting capability provides space-saving versatility for your workspace.
Latest Intel® Core processors and optional vPro™ technology for remote and advanced out of band management	Update once and everywhere with Dell-unique Intel® vPro™ capabilities for remote BIOS management and hard drive wipe, even when systems are offline. Remote or out-of-band management provides a time saving, secure and cost effective method to enable your workforce and manage issues quickly.
<b>World's most manageable desktop</b> with Dell Client Command Suite tools and Dell Configuration & Deployment Services	By building unique management capabilities into OptiPlex desktops, Dell Client Command Suite provides free tools that automate and streamline system deployment, monitoring and updating in complex IT environments. By optimizing your systems management environment, businesses can save up to \$57/per systems each year through less labor costs and improved end-user productivity.
<b>Most secure commercial desktop</b> with advanced Dell Data Protection hardware and software solutions	Dell builds unique security capabilities into our OptiPlex desktops that provide comprehensive encryption, advanced authentication, and malware prevention solutions available straight from the factory or through volume licensing options. Automatically protect data wherever it goes—on all local drives and removable media—enabling end-user collaboration without risk of data loss or security breaches.

## Recommended Accessories

### Dell Lockable Port Cover

Secure your device and the data within it

### Dell Wireless Keyboard and Mouse

Ultimate productivity in a clutter-free workspace

### Dell Height Adjustable Stand

Adjust your view for optimal comfort



**Dell OptiPlex 9030 Touch 4\*/5\***  
"The 9030 is a definite success."

— Computer Shopper

# Dell OptiPlex 9030 All-in-One

Save space. Boost performance.

Streamline your organization with the space-saving OptiPlex 9030 All-in-One desktop with best-in-class security and manageability features.

Dell OptiPlex 9030 All-in-One is Dell's thinnest all-in-one in the market today, and offers a standout stylish and streamlined design ideal for highly visible workspaces.



Lenovo ThinkCenter M93z All-in-One	HP EliteOne 800 G1 All-in-One	HP EliteOne 705 G1 All-in-One
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Intel® Q87	Chipset	Intel® Q87	Intel® Q87	AMD D4	
23" Full HD	Display	23" Full HD	23" Full HD	23" Full HD	
4th generation Intel® Core™ i3, i5, i7	Processor	4th generation Intel® Core™ i3, i5, i7	4th generation Intel® Core™ i5, i7	Up to AMD A10 Pro	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Linux	Microsoft® Windows 7 & 8.1, Linux	
Intel HD, AMD	Graphics	Intel HD, AMD	Intel HD, AMD	AMD HD, AMD	
Up to 16 GB DDR3 memory (2 DIMM)	Memory	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)	
Optional	Touch option	Optional	Optional	No	
Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 500GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 320GB SED	Up to 1TB SATA 7200 rpm HDD, 500GB SED	Up to 500GB SATA 7200 rpm HDD, 500GB SED	
Up to 256GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 180GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD	Up to 256GB SSD, 256GB SED SSD / Up to 1TB SSHD	
Optional	Raid	Optional	Optional	Optional	
Optional	Optical drive	Optional	Optional	Optional	
1x HDMI in, 1x HDMI Out, 1x Display Port	Video ports	1x Display Port Out, 1x VGA In	1x Display Port Out	1x Display Port Out	
Internal	Power Supply	Internal	Internal	Internal	
4x USB 3.0, 4x USB 2.0, SD, RJ-45	Input / output	6x USB 3.0, SD, RJ-45, PS/2	6x USB 3.0, SD, RJ-45, Serial, PS/2	4x USB 3.0, 2x USB 2.0, SD, RJ-45, Serial, PS/2	
1x M.2	Expansion	2x Mini Pcie	1x Mini PCIe, 1x mSATA, 1x MXM	1 HH Mini PCIe, 1 x M.2 PCIe	
2 MP	Webcam	2 MP	2 MP	2 MP	
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN	Broadcom 2x2 WLAN	
Bluetooth	Wireless connectivity	Bluetooth	Bluetooth	Bluetooth	
Chassis Intrusion Switch, BIOS Port Disable, Lock slot, Panel Lock, Cable Lock, Plate Lock, Camera Cover	Physical security	Chassis Intrusion Switch, Bios Port Disable, Lock slot, Cable Lock, Camera Cover	Chassis Intrusion Switch, Bios Port Disable, Lock slot, Panel Lock, Cable Lock, Plate Lock, Camera Cover		
TPM, optional Crypto Accelerator	Security chips	TPM	TPM	TPM	
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM	AMD DASH	
56.7 x 6 x 38.1	Dimensions (WxDxH) no Stand - Metric	56.8 x 6.7 x 40.1	55.9 x 5.03 x 38.8	55.9 x 15.2 x 43.7	
22.34 x 2.36 x 14.99	Dimensions (WxDxH) no Stand - US	22.36 x 2.63 x 15.78	22 x 1.98 x 15.3	22 x 6 x 17.2	
Height Adjustable, VESA	Stands	Height Adjustable, Recline, VESA	Height Adjustable, Recline, VESA	Height Adjustable, Recline, VESA	
July 2014	Launch Date	June 2013	June 2013	September 2014	

### Dell OptiPlex 9030 All-in-One unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



### Why Dell OptiPlex 9030 All-in-One :

Dell Data Protection|Encryption

With more USB Ports and Video Connections, the 9030 AIO gives customers increased flexibility and display possibilities.

### Why Dell OptiPlex 9030 All-in-One :

Dell Data Protection|Encryption

Not only does the 9030 AIO have more input/output connections, but it also allows double the storage capacity.

### Why Dell OptiPlex 9030 All-in-One :

Dell Data Protection|Encryption



# Dell OptiPlex 9020

Dell's most manageable business client desktop delivers leading-edge security and enhanced productivity features.



Key features	Why it matters
Latest Intel® Core processors and optional vPro™ technology for remote and advanced out of band management	Update once and everywhere with Dell-unique Intel® vPro™ capabilities for remote BIOS management and hard drive wipe, even when systems are offline. Remote or out-of-band management provides a time saving, secure and cost effective method to enable your workforce and manage issues quickly..
<b>World's most manageable desktop</b> with Dell Client Command Suite tools and Dell Configuration & Deployment Services	By building unique management capabilities into OptiPlex desktops, Dell Client Command Suite provides free tools that automate and streamline system deployment, monitoring and updating in complex IT environments. By optimizing your systems management environment with Dell Client Command Suite, businesses can save up to \$57/per systems each year through less labor costs and improved end-user productivity.
<b>Most secure commercial desktop</b> with advanced Dell Data Protection hardware and software solutions	Dell builds unique security capabilities into our OptiPlex desktops that provide comprehensive encryption, advanced authentication, and malware prevention solutions available straight from the factory or through volume licensing options. Automatically protect data wherever it goes—on all local drives and removable media—enabling end-user collaboration without risk of data loss or breaches.
One of the greenest business desktops with built-in power supply and fully BFR/PVC – free chassis	An environmentally conscious design, including a chassis built from 10 percent postconsumer recycled plastics, can help lower your environmental footprint.
Triple monitor support (VGA/DP/DP)	Supports triple monitor display which increases productivity enabling simultaneous use of multiple applications.

## Recommended Accessories

### Dell U2412M UltraSharp Monitors

Graphics come to life on dual 24" LED-backlit screens

### Dell Dual Monitor Stand – MDS14

Maximize your viewing comfort and improve productivity

### Dell Smartcard Keyboard

Control user access and protect sensitive data

### Dell OptiPlex Micro VESA Mount

Mount your system on a wall or under a surface with an adapter bracket to manage power cables with ease

### Dell OptiPlex Micro AIO Mount for E-Series Displays

Allows the micro to be VESA mounted to select Dell E-Series displays

### Dell OptiPlex Micro All in One Mount

This solution replaces traditional all in one mounts for flexible screen sizes

### Dell OptiPlex Micro Console with DVD-RW

Designed for open environments to provide optical drive access, cable security and management

### Dell OptiPlex Micro Dual VESA with Humanscale Arm

Completely open your workspace with a behind the monitor mounting solution



# Dell OptiPlex 9020 Mini Tower

Premium Performance Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

This powerful Mini Tower has room to grow along with your business.



Lenovo ThinkCentre M93	HP EliteDesk 800 G1
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Intel® Q87	Chipset	Intel® Q87	Intel® Q87			
4th generation Intel® Core™ i3, i5, i7	Processor	4th generation Intel® Celeron, Pentium Core™ i3, i5, i7	4th generation Intel® Core™ i5, i7			
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Linux	Microsoft® Windows 7 & 8.1			
Intel HD, Nvidia, AMD	Graphics	Intel HD, Nvidia	Intel HD, Nvidia, AMD			
Up to 32 GB DDR3 memory (4 DIMM)	Memory	Up to 32 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)			
Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 500GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 320GB SED	Up to 500GB SATA 7200 rpm HDD, 500GB SED			
Up to 256GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 180GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD			
Optional	Raid	Optional	Optional			
Optional	Optical drive	Optional	Optional			
2x Display Port, 1x VGA	Video ports	2x Display Port, 1x VGA	2x Display Port, 1x VGA			
Standard Active PFC, 80 PLUS Bronze, 80 PLUS Gold	Power Supply					
"4 x USB3.0 + 6 x USB2.0, RJ-45, Serial, PS/2, headphone, microphone, line in. Optional: Parallel, Serial, 2nd NIC	Input / output	6x USB 3.0, 2x USB 2.0, SD, RJ-45, PS/2, Optional Serial, Optional Parallel	4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2			
2x PCIe, 1x PCIe1, 1x PCI	Expansion	2x PCIe, 1x PCIe1, 1x PCI, Optional Serial	2x PCIe, 2x PCIe1, optional 1x PCI			
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity	Intel 2x2 WLAN, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth			
Chassis lock, Intrusion Switch, BIOS Port Disable, Lock slot	Physical security	Chassis lock, Intrusion Switch	Chassis lock, BIOS Port Disable, Lock slot, Drive Lock			
TPM	Security chips	TPM	TPM			
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM			
36.10 x 17.50 x 41.66	Mini tower (metric)					
14.2 x 6.9 x 16.4	Mini tower (US)					
2014	Launch Date	2014	2014			

## Dell OptiPlex 9020 Mini Tower unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



## Why Dell OptiPlex 9020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

AMD graphic options available

More USB ports for connectivity

## Why Dell OptiPlex 9020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Up to 1TB for greater storage

# Dell OptiPlex 9020 Small Form Factor

Premium Performance Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

Power and dependability in a small size spacing issue.



Lenovo ThinkCentre M93	HP EliteDesk 800 G1
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Intel® Q87	Chipset	Intel® Q87	Intel® Q87			
4th generation Intel® Core™ i3, i5, i7	Processor	4th generation Intel® Celeron, Pentium Core™ i3, i5, i7	4th generation Intel® Core™ i5, i7			
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Linux	Microsoft® Windows 7 & 8.1			
Intel HD, Nvidia, AMD	Graphics	Intel HD, Nvidia	Intel HD, Nvidia, AMD			
Up to 32 GB DDR3 memory (4 DIMM)	Memory	Up to 32 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)			
Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 500GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 320GB SED	Up to 500GB SATA 7200 rpm HDD, 500GB SED			
Up to 256GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 180GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD			
Optional	Raid	Optional	Optional			
Optional	Optical drive	Optional	Optional			
2x Display Port, 1x VGA	Video ports	2x Display Port, 1x VGA	2x Display Port, 1x VGA			
Standard Active PFC, 80 PLUS Bronze, 80 PLUS Gold	Power Supply					
4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2	Input / output	6x USB 3.0, 2x USB 2.0, SD, RJ-45, PS/2, Optional Serial, Optional Parallel	4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2			
2x PCIe, 1x PCI	Expansion	2x PCIe, 1x PCIe1, 1x PCI, Optional Se-rial	2x PCIe, 2x PCIe1			
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity	Intel 2x2 WLAN, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth			
Chassis lock, Intrusion Switch, BIOS Port Disable, Lock slot	Physical security	Chassis lock, Intrusion Switch	Chassis lock, BIOS Port Disable, Lock slot, Drive Lock			
TPM	Security chips	TPM	TPM			
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM			
28.97 x 9.40 x 31.24	Small Form Factor (metric)					
11.4 x 3.7 x 12.3	Small Form Factor (US)					
2014	Launch Date	2014	2014			

## Dell OptiPlex 9020 Small Form Factor (SFF) unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



## Why Dell OptiPlex 9020 SFF :

- Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)
- AMD graphic options available
- More USB porrts for connectivity

## Why Dell OptiPlex 9020 SFF :

- Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)
- Up to 1TB for greater storage

# Dell OptiPlex 9020 Ultra Small Form Factor

Premium Performance Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

The Ultra Small Form Factor fits nearly spacing.



Lenovo ThinkCentre M93	HP EliteDesk 800 G1
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Intel® Q87	Chipset	Intel® Q87	Intel® Q87		
4th generation Intel® Core™ i3, i5, i7	Processor	4th generation Intel® Celeron, Pentium Core™ i3, i5, i7	4th generation Intel® Core™ i5, i7		
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Linux	Microsoft® Windows 7 & 8.1		
Intel HD	Graphics	Intel HD, Nvidia	Intel HD, AMD		
Up to 16GB DDR3 memory (2 DIMM)	Memory	Up to 32 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)		
Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 500GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 320GB SED	Up to 500GB SATA 7200 rpm HDD, 500GB SED		
Up to 256GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 180GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD		
Optional	Raid	Optional	Optional		
Optional	Optical drive	Optional	Optional		
2x Display Port, 1x VGA	Video ports	2x Display Port, 1x VGA	2x Display Port, 1x VGA		
Standard Active PFC, 80 PLUS Bronze, 80 PLUS Gold	Power Supply				
4x USB 3.0, 2x USB 2.0, SD, RJ-45, Serial, PS/2	Input / output	6x USB 3.0, 2x USB 2.0, SD, RJ-45, PS/2, Optional Serial, Optional Parallel	4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2		
1x Mini PCIe	Expansion	2x PCIe, 1x PCIe1, 1x PCI, Optional Serial	1 MiniPCIe, 1 mSata		
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity	Intel 2x2 WLAN, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth		
Chassis lock, Intrusion Switch, BIOS Port Disable, Lock slot	Physical security	Chassis lock, Intrusion Switch	Chassis lock, BIOS Port Disable, Lock slot, Drive Lock		
TPM	Security chips	TPM	TPM		
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM		
23.6 x 6.6 x 23.9	Ultra Small Form Factor (metric)				
9.3 x 2.6 x 9.4	Ultra Small Form Factor (US)				
2014	Launch Date	2014	2014		

Dell OptiPlex 9020 Ultra Small Form Factor (USFF) unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



Why Dell OptiPlex 9020 USFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Why Dell OptiPlex 9020 USFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)



# Dell OptiPlex 9020 Micro Form Factor

Premium Performance Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

The smallest OptiPlex fits anywhere you need it with multiple mounting options.



Intel® Q87	Chipset	Intel® Q87	Intel® Q87			
4th generation Intel® Core™ i3, i5, i7	Processor	4th generation Intel® Core™ i5, i7 (35watts)	4th generation Intel® Celeron, Pentium, Core™ i3-i7 (35Watts)			
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Linux			
Intel HD, Nvidia, AMD	Graphics	Intel HD	Intel HD, Nvidia, AMD			
Up to 16 GB DDR3 memory (2 DIMM)	Memory	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)			
Up to 1TB SATA 7200 rpm, 2TB 5400 rpm HDD, 500GB SED	Hard drive option	Up to 1TB	Up to 500GB SATA 7200 rpm HDD			
Up to 256GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 180GB SSD	Up to 256GB SED SSD / Up to 1TB SSHD			
None	Raid	None	Optional			
External	Optical drive	External	External			
1x Display Port, 1x VGA	Video ports	1x Display Port, 1x VGA	2x Display Port, 1x VGA			
External 65 Watts	Power Supply	External 65 Watts	External 65 Watts			
6x USB 3.0, SD, RJ-45, Optional HDMI, Display Port, Serial+PS/2	Input / output	5x USB 3.0, SD, RJ-45, Optional PS/2, Display Port, HDMI, Serial, Parallel	6x USB 3.0, SD, RJ-45			
2x M.2	Expansion	1x Mini PCIe	2x M.2			
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity	Intel 2x2 WLAN, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth			
Chassis lock, Intrusion Switch, BIOS Port Disable, Lock slot	Physical security	Chassis lock, Intrusion Switch	Chassis lock, BIOS Port Disable, Lock slot, Drive Lock			
TPM	Security chips	TPM	TPM			
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM			
28.97 x 9.40 x 31.24	Size: Micro (Metric)					
7.17 x 1.4 x 6.93	Size: Micro (US)					
Vertical Stand, VESA Mount, Dual VESA Mount, All in One Mount, Console with DVD-RW, All in One Mount for E Series Displays	Mounts					
2014	Launch Date	2014	2014			

## Dell OptiPlex 9020 Small Form Factor (SFF) unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



## Why Dell OptiPlex 9020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Fully tool - less design

More USB ports

## Why Dell OptiPlex 9020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Fully tool - less design

Native HDMI Option

# Dell OptiPlex XE2

The durable, versatile Dell OptiPlex XE2 desktop features an ultra-long lifecycle and the world's best management capabilities.



Key features	Why it matters
Dell OptiPlex stability, 3.5 years long sales lifecycle and managed transitions	With an ultra long purchase lifecycle, the OptiPlex XE2 significantly eases management and planning.
Latest Intel® Core processors and optional <b>vPro™</b> technology for remote and advanced out of band management capabilities	Update once and everywhere with Dell-unique Intel® vPro™ capabilities for remote BIOS management and hard drive wipe, even when systems are offline. Remote or out-of-band management provides a time saving, secure and cost effective method to enable your workforce and manage issues quickly.
<b>World's most manageable desktop</b> with Dell Client Command Suite tools and Dell Configuration & Deployment Services	By building unique management capabilities into OptiPlex desktops, Dell Client Command Suite provides free tools that automate and streamline system deployment, monitoring and updating in complex IT environments. By optimizing your systems management environment with Dell Client Command Suite, businesses can save up to \$57/per systems each year through less labor costs and improved end-user productivity.
<b>Most secure commercial desktop</b> with advanced Dell Data Protection hardware and software solutions	Dell builds unique security capabilities into our OptiPlex desktops that provide comprehensive encryption, advanced authentication, and malware prevention solutions available straight from the factory or through volume licensing options. Automatically protect data wherever it goes—on all local drives and removable media—enabling end-user collaboration without risk of data loss or security breaches.

## Recommended Accessories

### Dell 23" UltraSharp U2312HM Monitor

Offers a brilliant view, rich colors and adjustable heights

### Dell C3765dnf Color Laser Printer

Multifunction laser printer offers value, quality and efficiency

# Dell OptiPlex 7020

Best-in-class security with the reliability and performance necessary to power your business.



Key features	Why it matters
<b>World's most manageable desktop</b> with Dell Client Command Suite tools and Dell Configuration & Deployment Services	By building unique management capabilities into OptiPlex desktops, Dell Client Command Suite provides free tools that automate and streamline system deployment, monitoring and updating in complex IT environments. By optimizing your systems management environment with Dell Client Command Suite, businesses can save up to \$57/per systems each year through less labor costs and improved end-user productivity.
<b>Best in class security</b> with TPM and Dell Data Protection solutions	Enable protected end-user data access without disruption. Shift from simply securing a device to securing data wherever it goes. Easily meet security compliance requirements.
Tool-less serviceability	The OptiPlex 7020 has a tool-less chassis design to make it quick and easy to perform routine maintenance, saving you valuable time and resources.
Best-in-class durability	The Dell OptiPlex 7020 is made with durable materials that measure up against real-world conditions. It has undergone Dell Highly Accelerated Life Cycle Testing (H.A.L.T.) and has withstood our engineers' tolerance limits for heat, cold, vibration, shocks and drops.

## Recommended Accessories

### Dell 24" P2414H Monitor

Enjoy Full HD 1920 x 1080 resolution with an ultra-wide viewing angle

### Dell Dual Monitor Stand – MDS14

Maximize your viewing comfort and improve productivity

# Dell OptiPlex 7020 Mini Tower

Mainstream Computing

Workhorse desktop providing significant performance, advanced manageability, and best-in-class security.

This powerful Mini Tower has room to grow along with your business.



Intel® Q87	Chipset	Intel® Q85	Intel® Q85	Intel® Q87	
4th generation Intel® Core™ PDC, i3, i5, i7	Processor	4th generation Intel® Core™ PDC, i3, i5, i7	4th generation Intel® Core™ i5, i7	4th generation Intel® Core™ i3, i5	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	
Intel HD, AMD	Graphics	Intel HD, Nvidia	Intel HD, Nvidia, AMD	Intel HD	
Up to 16 GB DDR3 memory (4 DIMM)	Memory	Up to 16 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)	
Up to 1TB SATA 7200 rpm, 320GB SED	Hard drive option	Up to 1TB SATA 7200 rpm	Up to 500GB SATA 7200 rpm HDD, 500GB SED	Up to 2TB SATA 7200 rpm HDD, 500GB SED	
Up to 128GB SSD / Up to 500GB SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD	Up to 256GB SSD, 256GB SED SSD / Up to 1TB SSHD	
None	Raid	None	Optional	Optional	
Optional	Optical drive	Optional	Optional	Optional	
1x HDMI, 1x VGA	Video ports	2x Display Port, 1x VGA	2x Display Port, 1x VGA	2x Display Port, 1x VGA	
Standard Active PFC, 80 PLUS Bronze, 80 PLUS Gold	Power Supply	280 watts, autosensing		280 W standard efficiency, active PFC; 280 W, up to 93% efficient, active PFC	
4 x USB3.0 + 6 x USB2.0, RJ-45, Serial, PS/2, headphone, microphone, line in. Optional: Parallel, Serial, 2nd NIC	Input / output	4 x USB3.0 + 6 x USB2.0, RJ-45, Serial, headphone, microphone, line in. Optional: Parallel, Serial	4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2	4 USB 3.0; 6 USB 2.0; 1 serial; 2 PS/2; 1 audio in; 1 audio out; 1 RJ-45; 1 headphone; 1 microphone (Optional ports include 1 serial and 1 parallel)	
1x PCIe16, 3x PCIe1	Expansion		2x PCIe, 2x PCIe1, optional 1x PCI	2x PCIe, 2x PCIe1, optional 1x PCI	
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity		Intel 2x2 WLAN, Wi-Di, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth	
Standard security lock slot, Padlock loop, Intrusion switch, SED hard drive	Physical security	One lock to secure both cover and entire system to fixed object: Padlock loop (in rear for opt padlock). Security slot (in rear for optional Kensington MicroSaver cable). Intrusion Switch		Solenoid hood lock/sensor; Support for chassis padlocks and cable lock devices	
TPM	Security chips	Security Chip	TPM	TPM	
Dell Command Suite, vPro, ISM	Management	Intel Standard Manageability	Intel Standard Manageability	Intel Standard Manageability	
36.10 x 17.50 x 41.66	Mini tower (metric)	42.2 x 16 x 38.8	44.2 x 39.9 x 17	35.5 x 34 x 17	
14.2 x 6.9 x 16.4	Mini tower (US)	16.6 x 6.3 x 15.3	17.4 x 15.7 x 6.7	14 x 13.4 x 6.7	
	Launch Date		2014		

## Dell OptiPlex 7020 Mini Tower unique features:

Workhorse desktop providing significant performance, advanced manageability, and best-in-class security



## Why Dell OptiPlex 7020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

AMD graphic options available

## Why Dell OptiPlex 7020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

## Why Dell OptiPlex 7020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)



# Dell OptiPlex 7020 Small Form Factor

Mainstream Computing

Workhorse desktop providing significant performance, advanced manageability, and best-in-class security.

Power and dependability in a small size spacing.



Intel® Q87	Chipset	Intel® Q85	Intel® Q85	Intel® Q87	
4th generation Intel® Core™ PDC, i3, i5, i7	Processor	4th generation Intel® Core™ PDC, i3, i5, i7	4th generation Intel® Core™ i5, i7	4th generation Intel® Core™ i3, i5	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Ubuntu	
Intel HD, AMD	Graphics	Intel HD, Nvidia	Intel HD, Nvidia, AMD	Intel HD	
Up to 16 GB DDR3 memory (4 DIMM)	Memory	Up to 16 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)	
Up to 1TB SATA 7200 rpm, 320GB SED	Hard drive option	Up to 1TB SATA 7200 rpm	Up to 500GB SATA 7200 rpm HDD, 500GB SED	Up to 2TB SATA 7200 rpm HDD, 500GB SED	
Up to 128GB SSD / Up to 500GB SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 1TB SSHD	Up to 160GB SSD, 256GB SED SSD / Up to 1TB SSHD	Up to 256GB SSD, 256GB SED SSD / Up to 1TB SSHD	
None	Raid	None	Optional	Optional	
Optional	Optical drive	Optional	Optional	Optional	
1x HDMI, 1x VGA	Video ports	2x Display Port, 1x VGA	2x Display Port, 1x VGA	2x Display Port, 1x VGA	
Standard Active PFC, 80 PLUS Bronze, 80 PLUS Gold	Power Supply	240 watts, autosensing		240 W standard efficiency, active PFC; 280 W, up to 93% efficient, active PFC	
4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2	Input / output	4 x USB3.0 + 6 x USB2.0, RJ-45, Serial, headphone, microphone, line in. Optional: Parallel, Serial	4x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial, PS/2	4 USB 3.0; 6 USB 2.0; 1 serial; 2 PS/2; 1 audio in; 1 audio out; 1 RJ-45; 1 head-phone; 1 microphone	
1x PCIe16, 3x PCIe1	Expansion		2x PCIe, 2x PCIe1, optional 1x PCI	2x PCIe, 2x PCIe1, optional 1x PCI	
Intel wireless card, Bluetooth	Wireless LAN / Wireless Connectivity		Intel 2x2 WLAN, Wi-Di, Bluetooth	Intel 2x2 WLAN, Wi-Di, Bluetooth	
Standard security lock slot, Padlock loop, Intrusion switch, SED hard drive	Physical security	One lock to secure both cover and entire system to fixed object: Padlock loop (in rear for opt padlock). Security slot (in rear for optional Kensington MicroSaver cable). Intrusion Switch		Solenoid hood lock/sensor; Support for chassis padlocks and cable lock devices	
TPM	Security chips	Security Chip	TPM	TPM	
Dell Command Suite, vPro, ISM	Management	Intel Standard Manageability	Intel Standard Manageability	Intel Standard Manageability	
28.97 x 9.40 x 31.24	Small Form Factor (metric)	42.2 x 16 x 38.8	33.8 x 37.9 x 10	33.8 x 37.9 x 10	
11.4 x 3.7 x 12.3	Small Form Factor (US)	16.6 x 6.3 x 15.3	13.3 x 14.9 x 3.95	13.3 x 14.9 x 3.95	
2014	Launch Date	2014	2014		

Dell OptiPlex 7020 Small Form Factor (SFF) unique features:

Dell Data Protection|Encryption, Dell Unique Vpro Extensions



Why Dell OptiPlex 7020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Why Dell OptiPlex 7020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

Why Dell OptiPlex 7020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

# Dell OptiPlex 3030 All-in-One

Dell's sleek and space saving all-in-one desktop provides best-in-class security along with performance and collaboration.



Key features	Why it matters
19.5" 1600 x 900 resolution WLED screen, edge-to-edge touch glass, and optional ten point multi-touch (with Windows 8.1)	Navigate Windows 8.1 on a 19.5" LCD screen offering 1600 x 900 resolution and edge-to-edge glass for a vibrant view. With the optional touch screen, you can navigate between applications and windows with a simple tap, pinch, scroll or swipe.
Only Dell offers award-winning system management and virtualization software with best-in-class integration into Microsoft System Center and Dell KACE appliances	Saves time with a single console for centralized remote management with one-click system upgrades and automatic maintenance tasks.
<b>Best in class security</b> with TPM and Dell Data Protection solutions	Enable protected end-user data access without disruption. Shift from simply securing a device to securing data wherever it goes. Easily meet security compliance requirements.
Up to 4th Generation Intel® Core 65w i5 processors with up to 16GB memory and optional discrete graphics	4 <sup>th</sup> Generation Intel® Core CPUs offer the perfect balance of performance and efficiency.

## Recommended Accessories

### Dell Lockable Port Cover

Secure your device and the data within it

### Dell Wireless Keyboard & Mouse

Ultimate productivity in a clutter-free workspace



**Won 2014 "Green Partnership Award" from the Taiwan Ministry of Economic Affairs** for the OptiPlex 3030 All-in-One's ULE-certified closed-loop recycling initiative.

# Dell OptiPlex 3030 All-in-One

Streamlined manageability.

Available with Windows 8.1  
Free your workspace from clutter with the OptiPlex 3030 All-in-One desktop featuring an optional touch screen for easy navigation without a mouse.

Essential features and reliable tools make this all-in-one a versatile fit for your office environment. The OptiPlex 3030 All-in-one provides the perfect solution for information kiosks, check-in services, digital signage and collaboration tools.



Lenovo ThinkCenter M73z All-in-One	HP EliteOne 400 G1 All-in-One
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H81	Chipset				
19.5" HD+	Display	20" HD+	19.5" HD+/21" Full HD		
4th generation Intel® Celeron, Pentium, Core™ i3	Processor	4th generation Intel® Celeron, Pentium, Core™ i3, i5, i7	4th generation Intel® Core™ i3, i5, i7		
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1	Microsoft® Windows 7 & 8.1, Linux		
Intel HD, AMD	Graphics	Intel HD	Intel HD		
Up to 16 GB DDR3 memory (2 DIMM)	Memory	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)		
Optional	Touch option	Optional	Optional 21"		
Up to 1TB SATA 7200 rpm	Hard drive option	Up to 1TB SATA 7200 rpm	Up to 1TB SATA 7200 rpm HDD, 500GB SED		
Up to 128GB SSD / Up to 500GB, 500GB SED SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 1TB SSHD	Up to 256GB SED SSD / Up to 1TB SSHD		
No Raid	Raid	No Raid	No Raid		
Optional	Optical drive	Optional	Optional		
1x VGA In	Video ports	1x VGA In	1x Display Port Out		
Internal	Power Supply	Internal	External		
4x USB 3.0, 2x USB 2.0, SD, RJ-45	Input / output	4x USB 3.0, 2x USB 2.0, SD, RJ-45, PS/2, Serial	1x USB 3.0, 6x USB 2.0, SD, RJ-45, Serial		
1MP	Webcam	1 MP, 2 MP	2 MP		
Intel 2x2 WLAN	Wireless LAN	Intel 2x2 WLAN	Intel 2x2 WLAN		
No Bluetooth	Wireless connectivity		Bluetooth 4.0		
Bios Port Disable, Lock slot, Cable Lock, Plate Lock, Camera Cover	Physical security	Chassis Intrusion Switch, Bios Port Disable, Lock slot, Cable Lock, Camera Cover	Bios Port Disable, Lock slot, Cable Lock, Camera Cover		
TPM	Security chips	TPM	TPM		
Dell Command Suite, vPro, ISM	Management	vPro, ISM	vPro, ISM		
48.99 x 6.8 x 32.9	Dimensions (WxDxH) no Stand - Metric	56.8 x 6.7 x 40.1	55.9 x 5.0 x 38.9		
19.3 x 2.66 x 12.9	Dimensions (WxDxH) no Stand - US	22.36 x 2.63 x 15.78	22 x 1.98 x 15.3		
Standard, VESA	Stands	Standard, Height Adjustable, VESA	Standard, VESA		
July 2014	Launch Date	June 2013	June 2013		

Dell OptiPlex 9030 All-in-One unique features:

Made with Closed Loop Recycle Plastic Materials



Why Dell OptiPlex 9030 All-in-One :

Discrete Graphics

Why Dell OptiPlex 9030 All-in-One :

Discrete Graphics and Internal PSU

# Dell OptiPlex 3020

Boost productivity with essential business-class performance, excellent security and simple serviceability.



Key features	Why it matters
Space-saving MT, SFF and Micro chassis	Multiple deployment options, offering 4th Generation Intel® processors (Celeron to i5 Quad Core) with up to 16GB memory and optional discrete graphics.
<b>Best in class manageability</b> with Dell Client Command Suite tools	Saves time with a single console for centralized remote management with one-click system upgrades and automatic maintenance tasks. By optimizing your systems management environment with Dell Client Command Suite, businesses can save up to \$57/per systems each year through less labor costs and improved end-user productivity.
<b>Best in class security</b> with TPM and Dell Data Protection solutions	Enable protected end-user data access without disruption. Shift from simply securing a device to securing data wherever it goes. Easily meet security compliance requirements.
Tool-less serviceability	Easy access to the system components for servicing and upgrades.
Six mounting options designed and tested for OptiPlex Micro PCs	A full range of mounting solutions designed and tested for OptiPlex Micro PC – to let customers make room for what matters most.
ENERGY STAR 6.0 qualified and EPEAT registered	Minimize energy consumption while saving money with ENERGY STAR 6.0.

## Recommended Accessories

### Dell P2214H Monitor

Enjoy Full HD 1920 x 1080 resolution with an ultra-wide viewing angle

### Dell Single Monitor Arm – MSA14

Adjust your monitor any way you want for a comfortable viewing experience

### Dell Wireless Keyboard & Mouse

Ultimate productivity in a clutter-free workspace

### Dell OptiPlex Micro VESA Mount

Mount your system on a wall or under a surface with an adapter bracket to manage power cables with ease

### Dell OptiPlex Micro AIO Mount for E-Series Displays

Allows the micro to be VESA mounted to select Dell E-Series displays

### Dell OptiPlex Micro Console with DVD-RW

Designed for open environments to provide optical drive access, cable security and management

### Dell OptiPlex Micro Dual VESA with Humanscale Arm

Complete open your workspace with a behind the monitor mounting solution

### Dell OptiPlex Micro All in One Mount

This solution replaces traditional all-in-one mounts for flexible screen sizes



# Dell OptiPlex 3020 Mini Tower

## Essential Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

This powerful Mini Tower has room to grow along with your business.



Intel® H81	Chipset	Intel® H81	Intel® H81 (HP 400)/Intel H97 (HP 490)	AMD A78 chipset	AMD SOC chipset
4th generation Intel® Celeron, Pentium, Core™ i5	Processor	4th generation Intel® Celeron, Pentium, Core™ i5	4th generation Intel® Celeron, Pentium, Core™ i7	AMD A4 to A10	AMD E1 to E4
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu
Intel HD, AMD	Graphics	Intel HD, AMD,nVidia	Intel HD, AMD,nVidia	Intel HD, AMD,nVidia	Intel HD, AMD,nVidia
Up to 16 GB DDR3 memory (2 DIMM)	Memory	Up to 16 GB DDR3 memory (2 DIMM)	Up to 32 GB DDR3 memory (4 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)
Up to 1TB SATA 7200 rpm, 320GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 320GB SED	Up to 1TB SATA 7200 rpm, 320GB SED	Up to 1TB SATA 7200 rpm, 320GB SED	Up to 2TB SATA 7200 rpm, 320GB SED
Up to 128GB SSD / Up to 500GB SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 500GB SSHD	Up to 128GB SSD / Up to 500GB SSHD	Up to 128GB SSD / Up to 500GB SSHD	Up to 128GB SSD / Up to 500GB SSHD
None	Raid	None	None	None	None
Optional	Optical drive	Optional	Optional	Optional	Optional
1x HDMI, 1x VGA	Video ports	1x HDMI, 1x VGA	1x HDMI, 1x VGA	1x HDMI, 1x VGA	1x HDMI, 1x VGA
EPA Gold, EPA Bronze and APFC	Power Supply	EPA Platinum, EPA Bronze and APFC	EPA Gold, EPA Bronze and APFC	EPA Platinum, EPA Bronze and APFC	EPA Gold, EPA Bronze and APFC
8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	Input / output	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	10x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0
1x PCIe16, 3x PCIe1	Expansion	1x PCIe16, 2x PCIe1	1x PCIe16, 3x PCIe1	1x PCIe16, 2x PCIe1 1xPCI	1x PCIe16, 3x PCIe1
802.11 a/b/g/n	Wireless LAN / Wireless Connectivity	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n
Industry standard lock	Physical security	Industry standard lock	Industry standard lock	Industry standard lock	Industry standard lock
TPM 1.2	Security chips	TPM 1.2	TPM 1.2	TPM 1.2	TPM 1.2
Dell Command Suite	Management	Lenovo Management tool	HP Mangament tool	Lenovo Management tool	HP Mangament tool
36.0 x 17.5 x 41.7	Mini tower (metric)	38.8 X 16 x 42.2	18.28 x 40.2 x 35.7	38.8 X 16 x 42.2	18.28 x 40.2 x 35.7
14.2 x 6.9 x 16.4	Mini tower (US)	15.3 x 6.3 x 16.6	7.2 x 15.8 x 14.1	15.3 x 6.3 x 16.7	7.2 x 15.8 x 14.1
	Launch Date				

### Dell OptiPlex 3020 Mini Tower unique features:

- BIST on the PSU
- 4 expansion slots on Dell vs 3 on Lenovo



### Why Dell OptiPlex 3020 Mini Tower :

- 4 Expansion slots

### Why Dell OptiPlex 3020 Mini Tower :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

### Why Dell OptiPlex 3020 Mini Tower :

- 4 Expansion slots
- The OptiPlex 3020 offers standard voltage Intel CPUs; better throughput from the system.

### Why Dell OptiPlex 3020 Mini Tower :

- The OptiPlex 3020 is more friendly to IT departments since its true tool-less chassis design with no thumb-screws improves serviceability.
- The OptiPlex 3020 offers standard voltage Intel CPUs; better throughput from the system.

# Dell OptiPlex 3020 Small Form Factor

## Essential Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

Power and dependability in a small size that can be placed vertically or horizontally.



Intel® H81	Chipset	Intel® H81	Intel® H81	AMD A78 chipset		
4th generation Intel® Celeron, Pentium, Core™ i5	Processor	4th generation Intel® Celeron, Pentium, Core™ i5	4th generation Intel® Celeron, Pentium, Core™ i7	AMD A4 to A10		
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu		
Intel HD, AMD	Graphics	Intel HD, AMD,nVidia	Intel HD, AMD,nVidia	Intel HD, AMD,nVidia		
Up to 16 GB DDR3 memory (2 DIMM)	Memory	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)	Up to 16 GB DDR3 memory (2 DIMM)		
Up to 1TB SATA 7200 rpm, 320GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 320GB SED	Up to 1TB SATA 7200 rpm, 320GB SED	Up to 1TB SATA 7200 rpm, 320GB SED		
Up to 128GB SSD / Up to 500GB SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 500GB SSHD	Up to 128GB SSD / Up to 500GB SSHD	Up to 128GB SSD / Up to 500GB SSHD		
None	Raid	None	None	None		
Optional	Optical drive	Optional	Optional	Optional		
1x HDMI, 1x VGA	Video ports	1x HDMI, 1x VGA	1x HDMI, 1x VGA	1x HDMI, 1x VGA		
EPA Gold, EPA Bronze and APFC	Power Supply	EPA Platinum, EPA Bronze and APFC	EPA Gold, EPA Bronze and APFC	EPA Platinum, EPA Bronze and APFC		
8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	Input / output	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0		
1x PCIe16, 3x PCIe1	Expansion	1x PCIe16, 2x PCIe1	1x PCIe16, 3x PCIe1	1x PCIe16, 2x PCIe1 1xPCI		
802.11 a/b/g/n	Wireless LAN / Wireless Connectivity	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n		
Industry standard lock	Physical security	Industry standard lock	Industry standard lock	Industry standard lock		
TPM 1.2	Security chips	TPM 1.2	TPM 1.2	TPM 1.2		
Dell Command Suite	Management	Lenovo Management tool	HP Mangament tool	Lenovo Management tool		
29.0 x 9.3 x 31.2	Small Form Factor (metric)	38.8 X 10 x 38.5	33.7 x 38.05 x 10	38.8 X 10 x 38.5		
11.4 x 3.7 x 12.3	Small Form Factor (US)	15.3 x 3.9 x 15.2	13.3 x 15 x 3.9	15.3 x 3.9 x 15.2		
2014	Launch Date	2014	2014			

## Dell OptiPlex 3020 Small Form Factor (SFF) unique features:

BIST on the PSU

4 expansion slots on Dell vs 3 on Lenovo



## Why Dell OptiPlex 3020 SFF :

4 Expansion slots

## Why Dell OptiPlex 3020 SFF :

Dell leading Security (DDPE, DDPST), and Cloud Computing Solutions (Wyse)

## Why Dell OptiPlex 3020 SFF :

4 Expansion slots

The OptiPlex 3020 offers standard voltage Intel CPUs; better throughput from the system.

# Dell OptiPlex 3020 Micro Form Factor

Essential Computing

Offers essential computing power, productivity and collaboration features with basic manageability and best-in-class security.

The smallest OptiPlex fits anywhere you need it with multiple mounting options.



Lenovo ThinkCentre M73 Tiny



Lenovo ThinkCentre M53 Tiny



Lenovo ThinkCentre M79 Tiny



Intel® H110	Chipset	Intel® H81	Bay Trail Celeron and Pentium (10w) Intel System-on-Chip (SoC)	AMD A78 chipset	
6th generation Intel® Celeron, Pentium, Core™ i7	Processor	4th generation Intel® Celeron, Pentium, Core™ i5	4th generation Intel® Celeron, Pentium	AMD A4 to A10	
Microsoft® Windows 7 & 8.1, Ubuntu	Operating System	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	Microsoft® Windows 7 & 8.1, Ubuntu	
Intel HD	Graphics	Intel HD	Intel HD	Intel HD	
Up to 16 GB DDR3 memory (2 SODIMM)	Memory	Up to 16 GB DDR3 memory (2 SODIMM)	1 SoDIMM, up to 8GB	Up to 16 GB DDR3 memory (2 SODIMM)	
Up to 1TB SATA 7200 rpm, 320GB SED	Hard drive option	Up to 1TB SATA 7200 rpm, 320GB SED	500 Hybrid w/8GB Flash and SSD's	Up to 1TB SATA 7200 rpm, 320GB SED	
Up to 128GB SSD / Up to 500GB SSHD	SSD / Hybrid option	Up to 128GB SSD / Up to 500GB SSHD	500 Hybrid w/8GB Flash and SSD's	Up to 128GB SSD / Up to 500GB SSHD	
None	Raid	None	None	None	
Optional	Optical drive	Optional	Optional	Optional	
1x HDMI, 1x VGA	Video ports	1x HDMI, 1x VGA	1x HDMI, 1x VGA	1x HDMI, 1x VGA	
External 65W	Power Supply	External 65W	External 65W	External 65W	
"6 USB3.0 (2 front, 4 rear), 1 RJ-45,	Input / output	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	8x USB 2.0, SD, RJ-45, optional Serial, Parallel, PS/2, USB 3.0	
1 Line-out (front), 1 External Antenna Serial+PS2 (optional)"	Expansion				
802.11 AC	Wireless LAN / Wireless Connectivity	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	
Optional Cable Cover, Industry standard lock	Physical security	Industry standard lock	Industry standard lock	Industry standard lock	
TPM 2.0	Security chips	TPM 1.2	TPM 1.2	TPM 1.2	
Dell Command Suite	Management	Lenovo Management tool	Lenovo Management tool	Lenovo Management tool	
18.2 x 3.6 x 17.6	Micro form factor (metric)	17.8 x 18.3 x 3.3	17.8 x 18.3 x 3.3	17.8 x 18.3 x 3.3	
7.17 x 1.4 x 6.93	Micro form factor (US)	7 x 7.17 x 1.35	7 x 7.17 x 1.35	7 x 7.17 x 1.35	
Vertical Stand, VESA Mount, Dual VESA Mount, All in One Mount, Console with DVD-RW, All in One Mount for E Series Displays	Mounts	Vertical stand, VESA mount, "Sandwich mount" (Dual VESA), Under Desk, L Bracket mounting kit	Vertical stand, VESA mount, "Sandwich mount" (Dual VESA), Under Desk, L Bracket mounting kit	Vertical stand, VESA mount, "Sandwich mount" (Dual VESA), Under Desk, L Bracket mounting kit	
	Launch Date				

Dell OptiPlex 3020 Mini Tower unique features:



Why Dell OptiPlex 3020 Mini Tower :

Dell OptiPlex Micro offers native PS/2 whereas the Lenovo Tiny solution requires their I/O Expansion. Many PS/2 customers completely disable USB ports for security. Customer cannot do this with Lenovo's design. Dell OptiPlex Micro also offers many desired customer features such as a completely tool-less chassis.

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# Precision



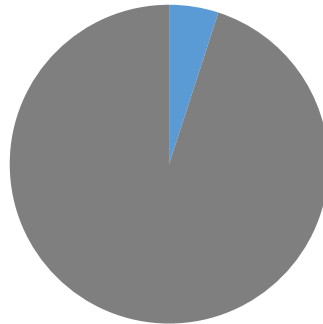


# Why sell Precision:

## Precision is a significant contributor to Dell's bottom Line

~6%

Precision is only 6% of Commercial Client units sold



■ Precision ■ Rest

Workstation users buy HIGH VALUE peripherals



~12%

Of Client Solutions Revenue is from Precision



Highest ProSupport attach rate



~25%

Of Client Solutions **Margin** is from Precision



Opens the door for other biz client & data center opportunities



# Dell Precision Tower & Rack Workstations

Services + Products + Software + Accessories



Dell Precision Tower T1700

Professional performance meets affordability



Dell Precision Tower 5810

Big power in a compact innovative design



Dell Precision Tower 7810/7910

The most powerful and scalable Dell Precision ever



Dell Precision Rack 7910

Ultimate workstation performance and security for 1:1 or 1:many

Entry

Mainstream

Ultimate Performance

1:1 or 1:Many

most **secure** | most **manageable** | most **reliable**  
backed by Dell ProSupport™ Plus

## How to uncover if your customer needs a workstation

### Basic questions and words to listen for:

#### What type of work will you be using your PC for?

- **Media & Entertainment:** Graphic design, Game development, Film, Video, VFX, Post production, Sound, Web design
- **Manufacturing & Engineering:** Manufacturing of products, machinery and fabrication; Architecture, Engineering, Construction; Aerospace and transportation
- **Sciences:** Healthcare Life Sciences, Oil & Gas, Geographic Information Systems (GIS)
- **Economics & Financial Services:** Trading; Financial Analysis

#### Which company's software applications are you using?

- **Media & Entertainment:** Adobe, Autodesk, Avid, The Foundry, Grass Valley, Sony, Maxon, Cakewalk
- **Manufacturing & Engineering:** Autodesk, Solidworks, Dassault Systems, AnSys, PTC, Altair, Siemens, Spaceclaim, Bentley, MSC Software
- **Sciences:** Halliburton, Schlumberger, Dynamic Graphics, esri, ffa, Dome, Barco, National Instruments, Acceleware, SciComp
- **Economics & Financial Services:** Aquamin, SciComp, In-house custom applications

#### How powerful do you need your system to be? *(Buzz words)*

- **Processors:** Intel Core or Xeon; Multi-core; Dual; Higher performance
- **Graphics:** Professional-grade; OpenGL; GP GPU (graphics compute); 2D or 3D, NVidia, AMD; Multiple graphics cards
- **Displays:** Multiple; High resolution; Ultra HD; 4K/5K; Color quality or calibration
- **Hard drives:** RAID; PCIe SSD; Multiple hard drives
- **Memory:** Error Correcting Code (ECC); Dell Reliable Memory Technology (RMT); >64GB
- **Virtualization:** 1 to many; Rack; Teradici PCoIP®
- **App support:** ISV Certified; Dell Precision Optimizer (Automated performance tuning for key applications)

## Awards & Recognition



#### Dell Precision Tower 5810

"Sheer power and wealth of features"  
-PCMag

#### Dell T1700 4.5/5

"A full professional-grade workstation"  
-PCMag

#1 Leader in rack workstations

# Dell Precision tower workstations

## Performance

Dell Precision delivers the world's most powerful and scalable tower and rack workstations with the very latest technologies. No job is too big with the latest Intel Core and Xeon processors, professional-grade graphics, amazing displays and robust memory and storage options. Dell Precision Optimizer works with some of the most popular Independent Software Vendor (ISV)-certified applications and automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity.

## innovative Design

Dell offers a variety of choices to deliver to your unique needs with mini tower, small form factor and rack options. Front accessible hard drives and an externally removable power supply on the innovative chassis design provide outstanding access to internal components for easy maintenance or upgrades.

## Reliability

Precision workstations are tested, certified and supported to deliver optimum reliability and maximum uptime. Long lifecycles and transitions enable simple planning for future product roll-outs, while ImageWatch™ gives advanced views of software and hardware changes. Dell solutions are certified by our independent software vendor (ISV) partners to provide assurance that specific hardware and software combinations meet key performance and reliability criteria and to guarantee accountability and support for certified configurations. All Precision workstations are backed by Dell's award-winning support services. Optional ProSupport Plus is the only complete support that combines proactive resolution, automated prevention and protection for PCs and tablets.



## Dell has it. HP doesn't.

### Outstanding performance & reliability

#### Designed from the inside out for superior performance with certified dependability

	Dell Precision	HP
Dell exclusive Reliable Memory Technology provides maximum uptime by eliminating virtually all memory errors .....	✓	✗
Dell Precision T7610 support for up to three high end graphics cards versus HP Z820 only two .....	✓	✗
Dell Precision T7610 features tool-free front accessible drives versus HP Z820 .....	✓	✗
Dell Precision T3610, T5610, T7610 feature Externally accessible power supply; HP Z420, Z620, Z820 do not .....	✓	✗

### More Secure

#### World's most secure workstations

	Dell Precision	HP
TPM 2.0 specifications available with additional cryptographic services for enhanced security .....	✓	✗
Dedicated security model with both a smartcard reader and biometric fingerprint reader .....	✓	✗

### More Manageable

#### Management features to optimize business productivity

	Dell Precision	HP
Dell ProSupport Plus, option for proactive & predictive support, Next Business Day Onsite Service after remote diagnosis with 24x7x365 tech-to-tech support .....	✓	✗
SCCM extensions for one-to-many out-of-band BIOS management and monitoring with Intel® vPro™ .....	✓	✗

### Dell Precision Performance Optimizer (DPPO)

A unique technology DPPO is available on Precision Fixed Workstations.

- Automatic tuning of workstation settings to enhance performance of select applications
- Keeps workstation up to date with latest driver, software, & firmware updates
- Track and report on system utilization to proactively manage potential issues

#### Preconfigured settings for:

- Adobe Creative Cloud®
- Adobe® Photoshop® CS/CC
- Adobe® Premiere® Pro CS/CC
- Adobe® After Effects® CS/CC
- Adobe® Media Encoder® CS/CC
- Autodesk® AutoCAD®
- Autodesk® Maya®
- Dassault Systèmes SolidWorks®
- Dassault Systèmes CATIA
- PTC® Creo®
- Siemens NX™

Discover more about the Dell Precision Performance Optimizer and download it on [dell.com](http://dell.com)

# Precision Rack 7910 Workstation

Experience the highest level of workstation performance for 1:1 or 1:many computing



Key features	Why it matters
1 or 2 multi-core Intel Xeon E5-2600 v3 Processors with up to 18 cores per CPU in a flexible 2U rack form factor	The Xeon E5-2600 series CPUs deliver outstanding performance with both single threaded interactive workstation applications like Mechanical CAD and Media and Entertainment - as well as with multithreaded computation intensive applications like analysis, simulation and rendering which scale with the number of cores.
1- 4 AMD FirePro or NVIDIA Quadro professional-grade graphics. Support for up to two NVidia Grid K2A cards	Wide choice of graphic card offerings from entry level 2D/3D applications all the way up to high end graphics with very large memory for fast rendering and visualization of very large data sets. Examples are complex images and scenes created with animation applications and large part files representing whole cars or planes with demanding MCAD applications. Rack 7910 can take up to 4 single width graphics cards for virtualization.
Ideal for secure 1:1 remote user access or 1: many access to virtual workstations with VMware or Citrix hypervisors	The convenient 2U rack form factor is ideal for datacenter, shop floor, academic labs, hazardous environments etc.. Outstanding remote access support with Teradici solutions and Wyse Zero clients hardware means remote users can be located anywhere there is a network - while their data never leaves the host system. Virtualization support with VMware and Citrix enables multiple users to access a single Rack 7910 workstation.
High performance storage options including 15K SAS hard drives and an innovative PCIe SSD card solution	Dell's Enterprise class SAS hard drives (up to 15K RPM) and PCIe SSD card with up to 4 M.2 PCIe SSDs deliver improved performance with key workstation user operations like opening, editing and saving very large files.
Optional RAID Configurations with up to 8 hard drives and high performance 12Gb/s second PCIe RAID controllers	Precision customers prize performance (and reliability) above all and that includes storage I/O performance i.e. how fast can they write and read large files back and forth to disks. RAID configs (organizing a number of disks in different ways) are available that maximize performance (RAID 0 for striping) or redundancy (Raid 1 - mirrored drives) or both with RAID 10 (striped mirrored drives.)
Dell iDRAC Out of band systems management	Provides IT system managers with the same data center "lights out" capability as they deploy on Dell's Power Edge Servers.
Teradici PCoIP® Workstation Access Software	Workstation users today are highly mobile and often need to access their applications and files while on the road or at home. Our remote access solutions allow them to easily do that remotely from a laptop or Android or IOS device.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation



# Precision Tower 7910 Workstation

The most powerful, scalable Dell Precision tower ever for ultimate performance and expandability



Key features	Why it matters
1 or 2 multi-core Intel Xeon E5-2600 v3 Processors with up to 18 cores per CPU	The Xeon E5-2600 series CPUs deliver outstanding performance with both single threaded interactive workstation applications like Mechanical CAD and Media and Entertainment - as well as with multithreaded computation intensive applications like analysis, simulation and rendering which scale with the number of cores.
1- 4 AMD FirePro or NVIDIA Quadro professional-grade graphics	Wide choice of graphic card offerings from entry level 2D/3D applications all the way up to high end graphics with very large memory for fast rendering and visualization of very large data sets. Examples are complex images and scenes created with animation applications and large part files representing whole cars or planes with demanding MCAD applications.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
High performance storage options including 15K SAS hard drives and an innovative PCIe SSD card solution	Dell's Enterprise class SAS hard drives (up to 15K RPM) and PCIe SSD card with up to 4 M.2 PCIe SSDs deliver improved performance with key workstation user operations like opening, editing and saving very large files.
Optional RAID Configurations with up to 8 hard drives and high performance 12Gb/s second PCIe RAID controllers	Precision customers prize performance (and reliability) above all and that includes storage I/O performance i.e. how fast can they write and read large files back and forth to disks. RAID configs (organizing a number of disks in different ways) are available that maximize performance (RAID 0 for striping) or redundancy (Raid 1 – mirrored drives) or both with RAID 10 (striped mirrored drives.)
Dell Reliable Memory Technology (RMT)	RMT reduces user downtime by mapping out bad spots on a DIMM to avoid blue screens and proactively warns the user after 7 incidents that they have bad DIMM which should be replaced.
Teradici PCoIP® Workstation Access Software	Workstation users today are highly mobile and often need to access their applications and files while on the road or at home. Our remote access solutions allow them to easily do that remotely from a laptop or Android or IOS device.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### 3DConnexion SpaceNavigator 3D Mouse

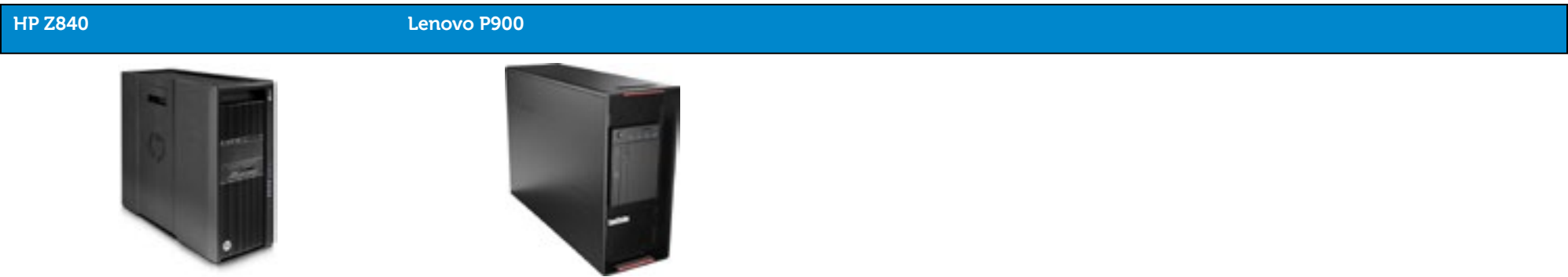
Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

# Dell Precision T7910

Ultimate power and scalability in a premium tower workstation.

A split chassis design for superb air flow, improved acoustics, and serviceability. Ample 1300W power supply for up to three high-end graphics cards.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Single or dual Intel® Xeon® E5-2600 v3 processors up to 18 cores per processor.	Processors	Single or dual Intel® Xeon® E5-2600 v3 processors up to 18 cores per processor.	Single or dual Intel® Xeon® E5-1600 and 2600 v3 up to 18 cores per proc.		
Windows® 7 & 8.1, Ubuntu, Red Hat EL	Operating Systems	Microsoft® Windows® 7 & 8.1, Ubuntu	Microsoft® Windows® 7 & 8.1		
Up to 1TB 2133MHz DDR4 ECC RDIMM	Memory	Up 512GB 2133MHz DDR4 ECC LRDIMM	Up 512GB 2133MHz DDR4 ECC LRDIMM		
Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® M6000 12GB	Single GPU	Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® M6000 12GB	Up to NVIDIA® Quadro® M6000 12GB		
Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® M6000 12GB	Dual GPU	Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® M6000 12GB	Up to NVIDIA® Quadro® K6000 12GB		
Up to NVIDIA® Quadro® K4200 4GB	Quad GPU	Not available.	Not available.		
Single or dual NVIDIA® Tesla® K20C	GPGPU Processor	Single or dual NVIDIA® Tesla® K40	NVIDIA® Tesla® K40C		
Intel® Xeon® Phi® 3120A	Coprocessor	Not available.	Intel® Xeon® Phi® 3120A		
Up to (4) 3.5-inch or (8) 2.5-inch drives	HDD Configurations	Up to (4) 3.5-inch or (8) 2.5-inch drives	Up to (6) 3.5-inch or (10) 2.5-inch drives		
3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA SED up to 500GB	Hard Disk Drives	3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA SED up to 500GB	3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 15k RPM up to 600GB		
"2.5-inch SATA up to 512GB 2.5-inch SAS up to 400GB 2.5-inch SED SSD 512GB"	Solid State Drives	2.5-inch SATA up to 1TB 2.5-inch SED SSD 256GB	2.5-inch SATA up to 1TB 2.5-inch SAS SSD up to 800GB 2.5-inch SED SSD up to 480GB		
Up to 4x 512GB (Zoom 4 Card)	PCIe SSD	Up to 512GB (Turbo Z Drive)	Up to 1.6TB (Fusion ioFX)		
0/1/5/10	RAID Support	0/1/5/10	0/1/5/10		
Tera2 Dual/Quad display PCoIP Card Teradici PCoIP Workstation Access SW	Remote Access	HP Remote Graphics SW (RGS)	Teradici 2220/2240 Remote WS Card		
DVD-ROM, DVD±RW, Blu-ray RW, media card reader	Removable Storage Media Options	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader		
(1) USB 3.0, (3) USB 2.0, Microphone In Headphone Out	Front Ports	(4) USB 3.0, Microphone In, Headset (Combined headphone & mic)	(4) USB 3.0, Headset (Combined head- phone & mic), SD card reader		
(3) USB 2.0	Internal Ports	(1) USB 3.0, (2) USB 2.0	N/A		
(3) USB 3.0, (3) USB 2.0, (2) PS/2, (2) RJ-45, (1) Serial, (1) Audio in, (1) Audio Out"	Rear Ports	(4) USB 3.0, (2) USB 2.0, (2) PS/2, (2) RJ-45, (1) Serial, (1) Audio in, (1) Audio Out	(4) USB 3.0, (4) USB 2.0, (2) PS/2, (2) RJ-45, (1) Serial, Audio (1) In, (1) Mic, (1) Out		
Trusted Platform Module (TPM 1.2)	Security	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)		
Kensington® lock slot, Padlock ring Lockable power supply, Intrusion switch	Physical Security	Kensington® lock slot, Solenoid chassis lock, Intrusion switch	Kensington® lock slot, Padlock ring		
Up to 1300W, 90% efficient	Power Supply	Up to 1125W, 90% efficient	Up to 1300W, 92% efficient		
438 x 216 x 545mm (51.56 L)	Dimensions (HWD) Metric	203 x 525 x 444 mm (47.32 L)	200 x 485 mm x 470 mm (45,59 L)		
16.95 x 8.5 x 20.67 in.	Dimensions (HWD) US	8 x 20.7 x 17.5 in.			

**Dell Precision T7910 unique features:**  
More scalability, ISV certification, a variety of graphic options, Dell Precision Optimizer, externally accessible hard drives, Dell Reliable Memory Technology and Dell ProSupport Plus

**Why Dell OPrecision T7910 :**

- With more memory and:
- Dell Reliable Memory Technology
  - Dell Precision Optimizer
  - ProSupport Plus

**Why Dell OPrecision T7910 :**

- With more memory and:
- Dell Reliable Memory Technology
  - Dell Precision Optimizer
  - ProSupport Plus

# Precision Tower 7810 Workstation

Ultimate performance and scalability in a compact and innovative tower design



Key features	Why it matters
1 or 2 multi-core Intel Xeon E5-2600 v3 processors with up to 14 cores per CPU	The Xeon E5-2600 series CPUs deliver outstanding performance with both single threaded interactive workstation applications like Mechanical CAD and Media and Entertainment - as well as with multithreaded computation intensive applications like analysis, simulation and rendering which scale with the number of cores.
Single or dual AMD FirePro or NVIDIA Quadro professional-grade graphics	Wide choice of graphic card offerings from entry level 2D/3D applications all the way up to high end graphics with very large memory for fast rendering and visualization of very large data sets. Examples are complex images and scenes created with animation applications and large part files representing whole cars or planes with demanding MCAD applications.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
High performance storage options including 15K SAS hard drives and an innovative PCIe SSD card solution	Dell's Enterprise class SAS hard drives (up to 15K RPM) and PCIe SSD card with up to 4 M.2 PCIe SSDs deliver improved performance with key workstation user operations like opening, editing and saving very large files.
Optional RAID Configurations with up to 4 hard drives and high performance 12Gb/s second PCIe RAID controllers	Precision customers prize performance (and reliability) above all and that includes storage I/O performance i.e. how fast can they write and read large files back and forth to disks. RAID configs (organizing a number of disks in different ways) are available that maximize performance (RAID 0 for striping) or redundancy (Raid 1 – mirrored drives) or both with RAID 10 (striped mirrored drives.)
Dell Reliable Memory Technology (RMT)	RMT reduces user downtime by mapping out bad spots on a DIMM to avoid blue screens and proactively warns the user after 7 incidents that they have bad DIMM which should be replaced.
Access your Workstation from anywhere with Teradici PCoIP® Workstation Access Software	Workstation users today are highly mobile and often need to access their applications and files while on the road or at home. Our remote access solutions allow them to easily do that remotely from a laptop or Android or IOS device.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### 3DConnexion SpaceNavigator 3D Mouse

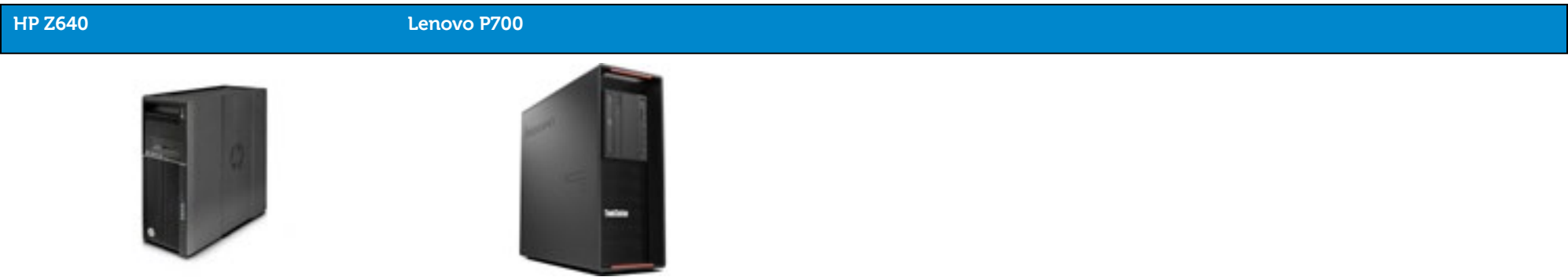
Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

# Dell Precision T7810

Power through resource-exhausting and graphics-intensive workloads with the advanced design of the dual processor Dell Precision Tower 7810

Straightforward, clutter-free interior provides easy access to components for service & modifications with ease.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Single or dual Intel® Xeon® E5-2600 v3 processors up to 18 cores per processor.	Processor	Single or dual Intel® Xeon® E5-1600 and 2600 v3 processors up to 18 cores per processor.	Single or dual Intel® Xeon® E5-1600 and 2600 v3 processors up to 18 cores per processor.		
Microsoft® Windows® 7 & 8.1, Ubuntu, Red Hat EL	Operating Systems	Microsoft® Windows® 7 & 8.1, Ubuntu	Microsoft® Windows® 7 & 8.1		
Up to 256GB 2133MHz DDR4 ECC RDIMM	Memory	Up to 256B 2133MHz DDR4 ECC LRDIMM	Up to 384GB 2133MHz DDR4 ECC LRDIMM		
Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K6000 12GB"	Single GPU	Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® M6000 12GB	Up to NVIDIA® Quadro® M6000 12GB		
Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K6000 12GB"	Dual GPU	"Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K5200 8GB"	Up to NVIDIA® Quadro® K5200 8GB		
Up to (3) 3.5-inch or (4) 2.5-inch drives	HDD Configurations	Up to (4) 3.5-in or (4) 2.5-in SATA drives	Up to (4) 3.5-in or (4) 2.5-in SATA drives		
3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB	Hard Disk Drives	3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB	3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 15k RPM up to 600GB		
2.5-inch SATA up to 512GB 2.5-inch SAS up to 400GB 2.5-inch SED SSD 512GB	Solid State Drives	2.5-inch SATA up to 1TB 2.5-inch SED SSD 256GB	2.5-inch SATA up to 1TB 2.5-inch SAS SSD up to 800GB 2.5-inch SED SSD up to 480GB		
Up to 4x 512GB (Zoom 4 Card)	PCIe SSD	Up to 512GB (Turbo Z Drive)	Up to 1.6TB (Fusion ioFX)		
0/1/5/10	RAID Support	0/1/5/10	0/1/5/10		
Tera2 Dual/Quad display PCoIP Card Teradici PCoIP Workstation Access SW	Removable Storage Media Options	HP Remote Graphics SW (RGS)	Teradici 2220/2240 Remote WS Card		
DVD-ROM, DVD±RW, Blu-ray RW, media card reader	Remote Access	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader		
(1) USB 3.0, (3) USB 2.0, Microphone In Headphone Out	Front Ports	(4) USB 3.0, Microphone In Headphone Out"	(4) USB 3.0, Headset (Combined head-phone & mic), SD card reader		
(3) USB 2.0	Internal Ports	(1) USB 3.0, (1) USB 2.0	N/A		
(3) USB 3.0, (3) USB 2.0, (2) PS/2, (1) RJ-45, (1) Serial, (1) Audio in, (1) Audio Out"	Rear Ports	(4) USB 3.0, (2) USB 2.0, (2) PS/2, (1) RJ-45, (1) Audio line-in, (1) Audio Out	(4) USB 3.0, (4) USB 2.0, (2) PS/2, (1) RJ-45, (1) Serial, Audio (1) In (1) Mic (1) Out		
Trusted Platform Module (TPM 1.2)	Security	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)		
Kensington® lock slot, Padlock ring Lockable power supply, Intrusion switch	Physical Security	Kensington® lock slot, Solenoid chassis lock, Intrusion switch	Kensington® lock slot, Padlock ring		
Up to 825W, 90% efficient	Power Supply	Up to 925W, 90% efficient	Up to 850W, 92% efficient		
414 x 172.6 x 471mm (33.66 L)	Dimensions (HWD) Metric	175 x 464.8 x 444.5 mm (36.36 L)	175 x 485 x 470 mm (39.89 L)		
16.3 x 6.79 x 18.54 in.	Dimensions (HWD) US	6.75 x 18.3 x 17.5 in.	6.9 x 18.5 x 17.3 in.		

Dell Precision T5810 unique features:

Variety of graphic options, ISV certification, Dell Precision Optimizer, externally ac-cessible hard drives, Dell Reliable Memory Technology and Dell ProSupport Plus

Why Dell OPrecision T5810 :

Powerful dual processor with:

- Larger hard drives
- Reliable Memory Technology
- Dell Precision Optimizer

Why Dell OPrecision T5810 :

Powerful dual processor with:

- Larger hard drives
- Reliable Memory Technology
- Dell Precision Optimizer



# Precision Tower 5810 Workstation

Big power in a compact, innovative design



Key features	Why it matters
High frequency Intel Xeon E5-1600 v3 processors with optional vPro	The Xeon E5-1600 series CPUs deliver outstanding price performance with (single threaded) interactive workstation applications like Mechanical CAD and Media and Entertainment - which scale with clock speed. I.e. want the fastest possible single core clock speed for the best user experience
Single or dual AMD FirePro or NVIDIA Quadro professional-grade graphics	Wide choice of graphic card offerings from entry level 2D/3D applications all the way up to high end graphics with very large memory for fast rendering and visualization of very large data sets. Examples are complex images and scenes created with animation applications and large part files representing whole cars or planes with demanding MCAD applications.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
High performance storage options including 15K SAS hard drives and an innovative PCIe SSD card solution	Dell's Enterprise class SAS hard drives (up to 15K RPM) and PCIe SSD card with up to 4 M.2 PCIe SSDs deliver improved performance with key workstation user operations like opening, editing and saving very large files.
Optional RAID Configurations with up to 4 hard drives and high performance 12Gb/s second PCIe RAID controllers	Precision customers prize performance (and reliability) above all and that includes storage I/O performance i.e. how fast can they write and read large files back and forth to disks. RAID configs (organizing a number of disks in different ways) are available that maximize performance (RAID 0 for striping) or redundancy (Raid 1 - mirrored drives) or both with RAID 10 (striped mirrored drives.)
Dell Reliable Memory Technology (RMT)	RMT reduces user downtime by mapping out bad spots on a DIMM to avoid blue screens and proactively warns the user after 7 incidents that they have bad DIMM which should be replaced.
Access your Workstation from anywhere with Teradici PCoIP® Workstation Access Software	Workstation users today are highly mobile and often need to access their applications and files while on the road or at home. Our remote access solutions allow them to easily do that remotely from a laptop or Android or IOS device.

## Recommended Accessories

### Dell UltraSharp 24 Ultra HD Monitor - UP2414Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### 3DConnexion SpaceNavigator 3D Mouse

Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

# Dell Precision T5810

Big power in a compact, innovative design

The only mainstream tower workstation family to offer an externally accessible tool-less (lockable) power supply for superior serviceability. Integrated front and rear aluminum handles for easy deployment and moves.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Intel® Xeon® E5-1600 and 2600 v3 processors up to 14 cores.	Processor	Intel® Xeon® E5-1600 v3 processors up to 8 cores.	Intel® Xeon® E5-1600 and 2600 v3 processors up to 14 cores.		
Microsoft® Windows® 7 & 8.1, Ubuntu, Red Hat EL	Operating Systems	Microsoft® Windows® 7 & 8.1, Ubuntu	Microsoft® Windows® 7 & 8.1		
Up to 256GB 2133MHz DDR4 ECC	Memory	Up to 128GB 2133MHz DDR4 ECC	Up to 256GB 2133MHz DDR4 ECC		
"Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K6000 12GB"	Single GPU	"Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K6000 12GB"	Up to NVIDIA® Quadro® K6000 12GB		
"Up to AMD FirePro™ W7100 8GB NVIDIA® Quadro® K5200 8GB"	Dual GPU	"Up to AMD FirePro™ W5100 4GB NVIDIA® Quadro® K2200 4GB"	Up to NVIDIA® Quadro® K5200 8GB		
Up to (3) 3.5-inch or (4) 2.5-inch drives	HDD Configurations	Up to (4) 3.5-in or (4) 2.5-in SATA drives	Up to (4) 3.5-in or (4) 2.5-in SATA drives		
3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB"	Hard Disk Drives	"3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10k RPM up to 1.2TB 2.5-inch SAS 15k RPM up to 600GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB"	3.5-inch SATA 7200 RPM up to 4TB  2.5-inch SAS 15k RPM up to 600GB		
2.5-inch SATA up to 512GB 2.5-inch SAS up to 400GB 2.5-inch SED SSD 512GB	Solid State Drives	2.5-inch SATA up to 1TB  2.5-inch SED SSD 256GB	2.5-inch SATA up to 512GB 2.5-inch SAS SSD up to 800GB 2.5-inch SED SSD up to 480GB		
Up to 4x 512GB (Zoom 4 Card)	PCIe SSD	Up to 512GB (Turbo Z Drive)	Up to 1.6TB (Fusion ioFX)		
0/1/5/10	RAID Support	0/1/5/10	0/1/5/10		
DVD-ROM, DVD±RW, media card reader	Removable Storage Media Options	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader		
Tera2 Dual/Quad display PCoIP Card Teradici PCoIP Workstation Access SW	Remote Access	HP Remote Graphics SW (RGS)	Teradici 2220/2240 Remote WS Card		
(1) USB 3.0, (3) USB 2.0, Microphone In Headphone Out	Front Ports	(4) USB 3.0, (2) USB 2.0, Microphone In Headphone Out	(4) USB 3.0, Headset (Combined head- phone & mic), SD card reader		
(3) USB 2.0	Internal Ports	(1) USB 3.0, (1) USB 2.0	N/A		
(3) USB 3.0, (3) USB 2.0, (2) PS/2, (1) RJ-45, (1) Serial, (1) Audio in, (1) Audio Out"	Rear Ports	(4) USB 3.0, (2) USB 2.0, (2) PS/2, (1) RJ-45, (1) Audio line-in, (1) Audio Out"	(4) USB 3.0, (4) USB 2.0, (2) PS/2, (1) RJ-45, (1) Serial, Audio (1) In, (1) Mic, (1) Out		
Trusted Platform Module (TPM 1.2)	Security	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)		
Kensington® lock slot, Padlock ring, Lockable power supply, Intrusion switch	Physical Security	Kensington® lock slot, Solenoid chassis lock, Intrusion switch	Kensington® lock slot, Padlock ring		
Up to 685W, 90% efficient	Power Supply	Up to 700W, 90% efficient	Up to 650W, 92% efficient		
414 x 172.6 x 471mm (33.66 L)	Dimensions (HWD) Metric	169 x 445 x 432 mm (32.49 L)	175 x 470 x 440 mm (36.19 L)		
16.3 x 6.79 x 18.54 in.	Dimensions (HWD) US	6.65 x 17.5 x 17 in.	6.9 x 18.5 x 17.3 in.		

Dell Precision T5810 unique features:

Variety of professional graphic options, ISV certification, external accessible hard drives, Dell Reliable Memory Technology, Dell Precision Optimizer and ProSupport Plus

Why Dell OPrecision T5810 :

- Affordable and powerful graphic options with:
- Larger hard drive capacity
  - Dell Precision Optimizer
  - Dell Reliable Technology

Why Dell OPrecision T5810 :

- Affordable and powerful graphic options with:
- Smaller chassis style
  - Dell Precision Optimizer
  - Dell Reliable Technology

# Precision T1700 Workstation

Workstation performance for about the price of a desktop in a mini-tower or small form factor design



Key features	Why it matters
4 <sup>th</sup> Intel Core processors, and Intel Xeon E3-1200 v3 processors	Latest Intel Haswell processors options deliver outstanding price performance for workstation applications.
Smart Design chassis – Minitower & Small Form Factor	Smallest SFF chassis in the industry for workstation deployment in space constrained environments. Minitower chassis also the smallest in the industry.
Professional-grade AMD FirePro™ or NVIDIA® Quadro® discrete graphics	Support for Intel integrated graphics as well as Professional graphics card for upto 150W on Minitower chassis, and 50W on SFF chassis. AMD FirePro & NVIDIA Quadro Graphic cards are certified by ISV's and offer superior performance for running professional applications over a comparable consumer graphics card.
Dell Precision Optimizer 2.5	The Dell Precision Optimizer automatically tunes your Workstation to run specific programs at the fastest speeds possible, enhancing productivity. Our engineers have created profiles specifically for the applications you use, minimizing the need to customize settings according to each application.
Up to 32GB of NECC/ECC memory	Support for upto 32GB of NECC/ECC memory options for superior performance. ECC (or Error Correcting Memory) helps with detection & correction of common memory errors.
Thunderbolt Option (via add in card)	High speed transfer of data & video.
ISV Certification	The Dell Precision Workstations you purchase are tested to ensure the high-performance applications you rely on every day run smoothly. ISV certification is the result of precise engineering and rigorous testing to optimize performance and reliability to run leading industry applications.

## Recommended Accessories

### Dell 27" Ultra HD Monitor - P2715Q

Hone in on the fine details and give your work the attention it deserves with four times the resolution of Full HD

### Dell Dual Monitor Stand

Optimize your dual monitor setup to improve productivity and reduce desktop clutter

### Dell Wireless Premium Keyboard & Mouse Combo (KM714)

Keep your desk clutter-free with a modern wireless keyboard and mouse combo

### 3DConnexion SpaceNavigator 3D Mouse

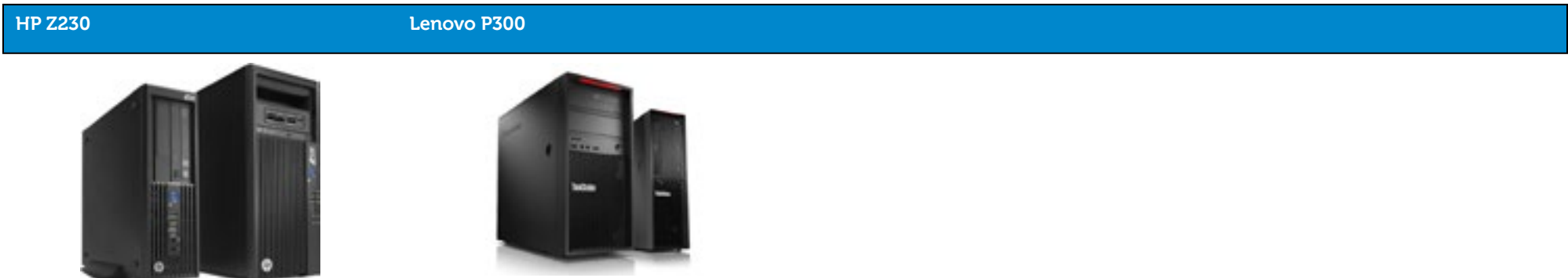
Fly through 3D design environments with the advanced mouse that allows natural and intuitive navigation

# Dell Precision T1700

Workstation performance for about the price of a desktop PC and is available in two compact sizes.

Whether you’re building 2-D or 3-D models or multitasking with demanding applications, the Dell Precision T1700 workstation can power through intensive tasks easily.

This workstation is independent software vendor (ISV) certified, meaning that the experts who made your software ensure that this machine will run it as intended, at full speed.



Intel® Core® i3, i5, i7, Xeon® E3-1200 v3 series processors	Processor	Intel® Pentium®, Core® i3, i5, i7, Xeon® E3-1200 v3 series processors	Intel® Core® i7 & Xeon® E3-1200 v3 series processors		
Microsoft® Windows® 7 & 8.1, Ubuntu, Red Hat EL	Operating Systems	Microsoft® Windows® 7 & 8.1, Ubuntu, SUSE	Microsoft® Windows® 7 & 8.1		
Up to 32GB 1600MHz ECC/non-ECC DDR3	Memory	Up to 32GB 1600MHz ECC/non-ECC DDR3	Up to 32GB 1600MHz ECC/non-ECC DDR3		
Up to NVIDIA® Quadro® K620 2GB or AMD® FirePro® W4100 2GB	Graphics (SFF)	"Up to NVIDIA® Quadro® K1200 4GB or AMD® FirePro® W2100 2GB (DDR3)"	Up to NVIDIA® Quadro® K1200 4GB		
Up to NVIDIA® Quadro® K4200 4GB or AMD® FirePro® W5100 4GB	Graphics (Mini Tower)	"Up to NVIDIA® Quadro® K4200 4GB or AMD® FirePro® W7100 8GB"	Up to NVIDIA® Quadro® K2200 4GB		
(1) 3.5-inch or (2) 2.5-inch SATA drives	HDD Configurations (SFF)	(1) 3.5-inch or (1) 2.5-inch SATA drives	(2) 3.5-inch and (1) 2.5-inch SATA drives		
Up to (2) 3.5-in or (4) 2.5-in SATA drives	HDD Configurations (Mini Tower)	Up to (3) 3.5-in or (3) 2.5-in SATA drives	Up to (4) 3.5-in or (4) 2.5-in SATA drives		
3.5-inch SATA 7200 RPM up to 2TB 2.5-inch SAS 10k RPM up to 500GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB	Hard Disk Drives	3.5-inch SATA 7200RPM up to 4TB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB	"3.5-inch SATA 7200 RPM up to 4TB 2.5-inch SAS 10K RPM up to 250GB 2.5-inch SATA Self Encrypting Drive (SED) up to 500GB"		
2.5-inch Up to 512GB	Solid State Drives	2.5-in up to 1TB, 2.5-in SED SSD 256GB"	2.5-in up to 1TB, SED SSD up to 480GB		
N/A	PCIe SSD	Up to 512GB	N/A		
0/1/5/10	RAID Support	0/1	0/1/5/10		
DVD-ROM, DVD±RW, MT: Blu-ray RW, media card reader	Removable Storage Media Options	DVD-ROM, DVD±RW, Blu-ray Writer, media card reader	DVD±RW, media card reader		
(2) USB 3.0, (2) USB 2.0, Microphone In Headphone Out"	Front Ports	(2) USB 3.0, (2) USB 2.0, Microphone In Headphone Out"	(2) USB 3.0, Microphone In Headphone Out"		
(1) USB 2.0 (MT Only)	Internal Ports	(1) USB 3.0, (3) USB 2.0	N/A		
(2) USB 3.0, (4) USB 2.0, (2) PS/2, (1) RJ-45, (1) Serial, (1) Audio in, (1) Audio Out"	Rear Ports	(2) USB 3.0, (4) USB 2.0, (2) PS/2, (1) RJ-45, (1) Audio in, (1) Audio Out	(4) USB 3.0, (2) USB 2.0, (1) RJ-45, (1) Serial, (1) Audio line-in, (1) Audio Out		
(2) DisplayPort, (1) VGA"	Video ports (Intel integrated GPU)	(2)DisplayPort (3 on SFF), DVI-I (MT only)	(2) Display Port, (1) VGA		
Trusted Platform Module 1.2 (TPM 1.2)	Security	Trusted Platform Module 1.2 (TPM 1.2)	Trusted Platform Module 1.2 (TPM 1.2)		
Up to 255W, 90% efficient	Power Supply (SFF)	Up to 240W, 92% efficient	Up to 240W, 92% efficient		
Up to 365W, 90% efficient	Power Supply (MT)	Up to 400W, 92% efficient	Up to 450W, 92% efficient		
290 x 92.6 x 312 mm (8.38 L)	SFF Dimensions (HWD) Metric	105 x 338 x 381 mm (13.5 L)	101.6 x 375.9 x 337.8 mm (12.9 L)		
11.42 x 3.65 x 12.28 in.	SFF Dimensions (HWD) US	3.95 x 13.3 x 15.0 in.	4 x 14.8 x 13.3 in.		
360 x 175 x 435 mm (27.4 L)	MT Dimensions (HWD) Metric	399 x 170 x 442 mm (30 L)	175.2 x 429.2 x 424.1 mm (31.9 L)		
14.17 x 6.89 x 17.13 in.	MT Dimensions (HWD) US	15.7 x 6.7 x 17.4 in.	6.9 x 16.97 x 16.7 in.		

Dell Precision T1700 unique features:

Workstation performance at about the price of a desktop. The smallest form factor in its class, ISV certification, Dell Precision Optimizer, ProSupport Plus and better graphics, storage and processing options.

Why Dell Precision T1700:

The smallest mini-tower and small form factor options with:

- Price for performance
- Dell Precision Optimizer
- Dell ProSupport Plus

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# Innovative Technologies



Windows 10



# Microsoft Windows 10

DELL MESSAGE: Let Dell help you migrate to take advantage of new Windows 10 features that will keep you more productive and your business more secure.

## Windows Migration

Windows 10 is a chance to enhance the **OS deployment capability** of your department to fully embrace end-user enabled deployments while establishing a **robust application store**.

## Better Protection

Data is your most valuable asset. Get advanced security protection for modern threats with Dell Data Protection (DDP) solutions, Windows 10 and the latest Intel processors, offering comprehensive **encryption**, advanced **authentication** and leading-edge **malware prevention**.

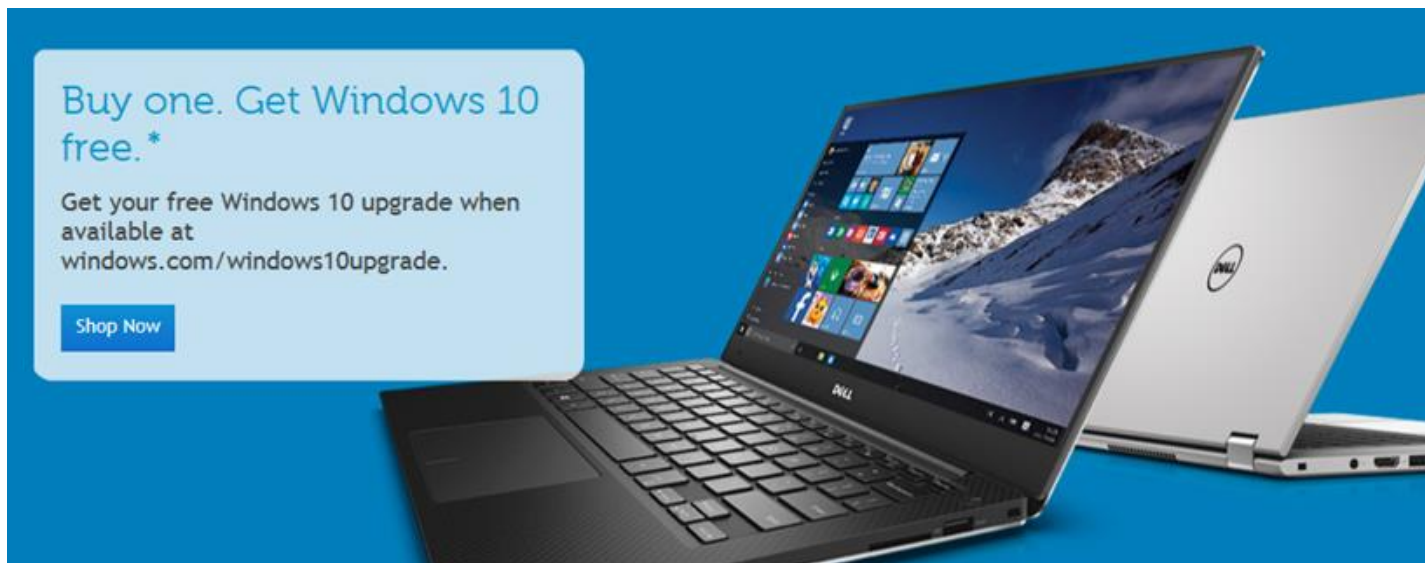
## User Experience

Windows 10 provides **increased productivity** by scaling across devices and offering a **familiar interface** for Windows 7 users. The benefits in **multi-tasking** from the improved fundamentals of Windows 10 paired with a new Dell PC and the added performance of the new Intel hardware are dramatic.

## Dell + Win10 Feature Alignment

Features	Windows Messaging	Dell + Win10 Message
Cortana	Your truly personal digital assistant, always there for you	Dell premium audio features, including Studio-quality voice enhancement with MaxxAudio® by Waves, makes it easy and reliable to interact with your personal virtual assistant on the go or in the office.
Microsoft Hello (NUI Unlock)	Yes, the world really does revolved around you	Dell systems equipped with the 3D Real Sense camera delivers the fastest and most reliable login and gives you easy and secure management of your passwords and personal information.
Continuum	The best screen is always the one you're on	Award-winning Dell 2-in-1 devices and tablets offer a seamless transition between optimized tablet and desktop software modes; making multi-tasking easy.
It just works	Fast, smooth, more secure and friendly	Your Dell system is fast, reliable and easy to use with best-in-class hardware and Dell ProSupport Plus. And now, with the new Windows 10, it's also the familiar interface that you love combined with future-ready features.
Microsoft Edge (Browser)	Fast, clean browser with a great annotation and pen experience	Dell delivers a great pen experience with accuracy, natural feel and great apps to be more productive as you are using this new, fast, clean browser that comes with Windows 10.

# Windows 10 Upgrade Offer Details



## What you need to know:

Sales Teams, Microsoft's free upgrade to Windows 10 Offer is for qualified Windows 7 SP1, Windows 8.1, and Windows Phone 8.1 devices (including devices you already own) that are upgraded within one year of Windows 10 release to web.

## **Target Audience**

- The Windows 10 Upgrade Offer is targeted at owners of Windows 7 SP1 and Windows 8.1 Update devices including Students, Home Users, Small Business, and Enthusiasts.
  - *Customers who own devices with earlier versions of Windows, Enterprise editions of Windows, and versions of Windows RT are not target audiences.*

## **Eligibility**

- PCs running with non-Enterprise editions of Windows 7 SP1 and Windows 8.1 Update that have been tested to be able to upgrade to Windows 10.
- Windows 7 (original release), Windows 8, and Windows 8.1 (original release) must first be updated to Windows 7 SP1 or
- Windows 8.1 Update and tested to be able to upgrade to Windows 10. These updates are available for free from Windows Update
- Offer must be redeemed within one year of Windows 10 release to web (the day the upgrade is released to consumers via Windows Update).
- Redemption happens by installing the upgrade via the Windows Update control panel or by tech bench.
- Windows 7 devices must have SP1 installed and Windows 8 and Windows 8.1 devices must have Windows 8.1 Update installed.
  - *Windows 7 Enterprise, Windows 8/8.1 Enterprise, and Windows RT/RT 8.1 are excluded from the offer.*
- Not all Windows 10 features will be available for use on all qualifying devices.
  - Additional hardware and software requirements apply and will be further communicated.
- Devices must be connected to the Internet and have Windows Update enabled. ISP fees may apply.

## **Availability**

- The offer will be available in all markets where Windows is commercially available and Windows Update is enabled for one year after general availability.
- It will be translated to 39 languages, with an additional 72 Language Interface Packs available to download.

\* Pre-release product shown, subject to change. Apps sold separately. Windows 10 Upgrade Offer valid for qualified Windows 7 and Windows 8.1 devices (including devices you already own) for one year after Windows 10 upgrade availability. Visit [windows.com/windows10upgrade](http://windows.com/windows10upgrade) for more details. Note: Free refers to the cost of the Windows 10 upgrade; ancillary charges and fees may apply



A solid blue rounded square button with the word "Docking" written in white text.

Docking

# Proven leader in docking

Dell is the only OEM to deliver its end users a consistent, common E-family docking solution for a 10 year long lifecycle across Latitude and Precision products.



While the modern workforce is becoming exponentially more mobile and work is being done in a variety of different environments, most employees are still doing some portion of their work at-the-desk where docking and larger displays are critical to multi-tasking and content creation.

**Through extensive research, here's what our customers are telling us:**

- Strong desire for **thinner, lighter** devices w/o compromise to productivity
- **Common docking** that can be supported across all form factors and devices – Dell or non-Dell
- **Less cables and wires** allowing for docking anywhere whether at a fixed desktop or hot desk/hotel cube

## Dell wireless dock

Dell's new wireless docking solution is available now for Latitude laptops, Ultrabooks™ and 2-in-1's with 5th generation Intel® Core™ vPro™ processors enabled with Intel® Tri-Band Wireless-AC 17265 for a desktop free of wires.

- **Seamless wireless docking** - powering up to two external displays, keyboard, mouse, audio and other peripherals.
- **Convenient connections** - with two USB ports in front and three USB ports in back, the dock unites everything conveniently in one place for your wireless desktop.
- **WI Gig high speed** - communicate wirelessly at multi-gigabit speeds—higher speeds than some of the fastest Wi-Fi networks.
- **Secure communication** - files are protected with data encryption and strong authentication protocols IEEE802.11 and current WLAN technologies.



# Dell Wireless Dock Technical Specifications

Product Specifications:	Dell Wireless Dock- WLD15
Model Number	Dell Wireless Docking Station (WLD15)
Wireless Standards	WiGig 1.1 / IEEE 802.11ad
System Wireless Card Requirements	Intel® Tri-Band Wireless-AC 17265 WiGig + WLAN + BT4.0LE Wireless Card
Frequency	60 GHz
# Displays Supported	2
Video Ports	(1) VGA, (1) mini Display Port and (1) HDMI
Input Ports	(2) USB 2.0, (3) USB 3.0
Audio/Headphone	(1) Audio Jack (Mix in/out via combo jack - front), (1) speaker output
Network	Gigabit Ethernet
LED Indicators	Link status and WPS pairing
Power Supply	19.5V/3.34A (65W)
Dimensions	120 x 120 x 70 mm
Weight	363g
System Requirements	PCs equipped with Intel WiGig antenna and Intel WiGig Module (Intel® Tri-Band Wireless-AC 17265 WiGig + WLAN + BT4.0LE Wireless Card) supporting WBE protocol
Operating Systems	Microsoft® Windows® 7, Microsoft® Windows® 8; 8.1, 10
Max WiGig Connection to PC	One
Warranty	<p>If purchased as a tied laptop accessory, the Dell Wireless Docking Station will share the system warranty which can be: Limited Hardware Warranty 1: Standard 3-year advanced exchange after Remote Diagnosis.</p> <p>If purchased separately, product warranty will be: Limited Hardware Warranty 1: Standard 1-year advanced exchange after Remote Diagnosis</p>

# Embracing USB Type-C for next gen docking

## What's happening?

- **Starting in October of 2015, Dell will begin offering the next generation of USB Type-C cable docking that utilizes two technologies and capabilities:**
  - DisplayPort™ over USB Type C: Single cable for audio, video, data & power (up to 130w)\*
  - Intel® Thunderbolt™ 3: Single cable for audio, multiple 4K video support, faster data transfer (up to 40 Gbps) & power (up to 130w)\*

## Customer benefits:

- Cable docking **allows us to further innovate and create even thinner and lighter** laptops, tablets, and workstations
- Provides one **common docking** experience across Dell or non-Dell platforms with USB-C port(s) having data, video, and power capabilities.
- Offers customers a **better user experience** by freeing up space and allows for docking anywhere on the desk.
- Simplifies cabling with **one single cable** to provide power, Ethernet, audio, USB and video (up to 130W power) enables users to quickly and easily connect.



## Ideal use cases & benefits

- **Desk Workers:** End users in all sizes of businesses with a variety of compatible systems, both Dell and non-Dell, can quickly and easily connect their laptops and tablets to the Dell Dock, enabling fast, efficient connectivity to multiple displays and essential peripherals through one convenient cable.
- **Hotel Cubes and Hot Desks:** In offices with shared spaces, the Dell Dock is an ideal solution, allowing IT decision makers to outfit their hotel cubes and hot desks with the Dell Dock, allowing for 1 easy purchasing decision across all compatible systems. The small size is also ideal, creating more desk space with the ability to easily connect systems to displays and peripherals. Compatible non-Dell systems are also easily connect to the Dell Dock.
- **Conference Room Collaboration:** Users can easily take their laptop or tablet from their desk to the conference room and connect to the Dell Dock, quickly connecting their system to shared resources such as a conference room display or projector.
- **Power Users:** The Dell Thunderbolt™ Dock is the ultimate docking solution, designed for power users and traditional workstation clients, creating the ability to connect three FHD displays or two 4K displays at 60Hz. Data transfers up to 40 Gbps allow lighting-fast transfers of larger files such as video editing files.



# Meet the Dell Dock

The Dell Dock allows users to quickly connect their laptop or tablet to a single data and power source with a single cable allowing for an easy, reliable connection from laptops and tablets to displays and peripherals.

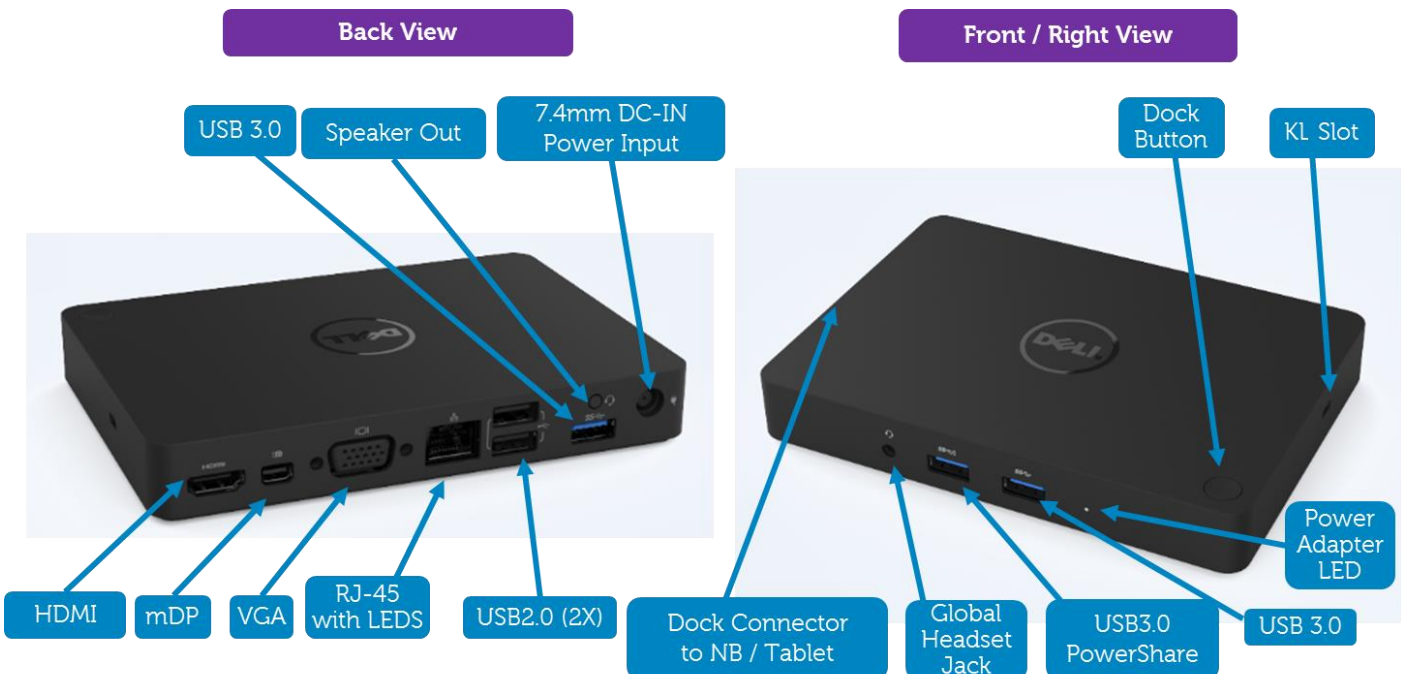
## Key Features:

- Common docking experience across platforms with USB-C port(s) having data, video, and power capabilities.
- Supporting compatible non-Dell systems
- Single cable for audio, video, data & power (up to 130w)\*
- Supports dual FHD displays
- Small footprint



*\*excludes Precision 7510/7710 – power adapter is also required for charging*

## Features



# Meet the Dell Thunderbolt™ Dock

The Dell Thunderbolt™ Dock with Intel® Thunderbolt 3 technology allows power users to quickly connect their mobile workstation to a single data and power source and allows for ultimate display performance (Up to two 4K displays) and faster data transfers (up to 40 Gbps).

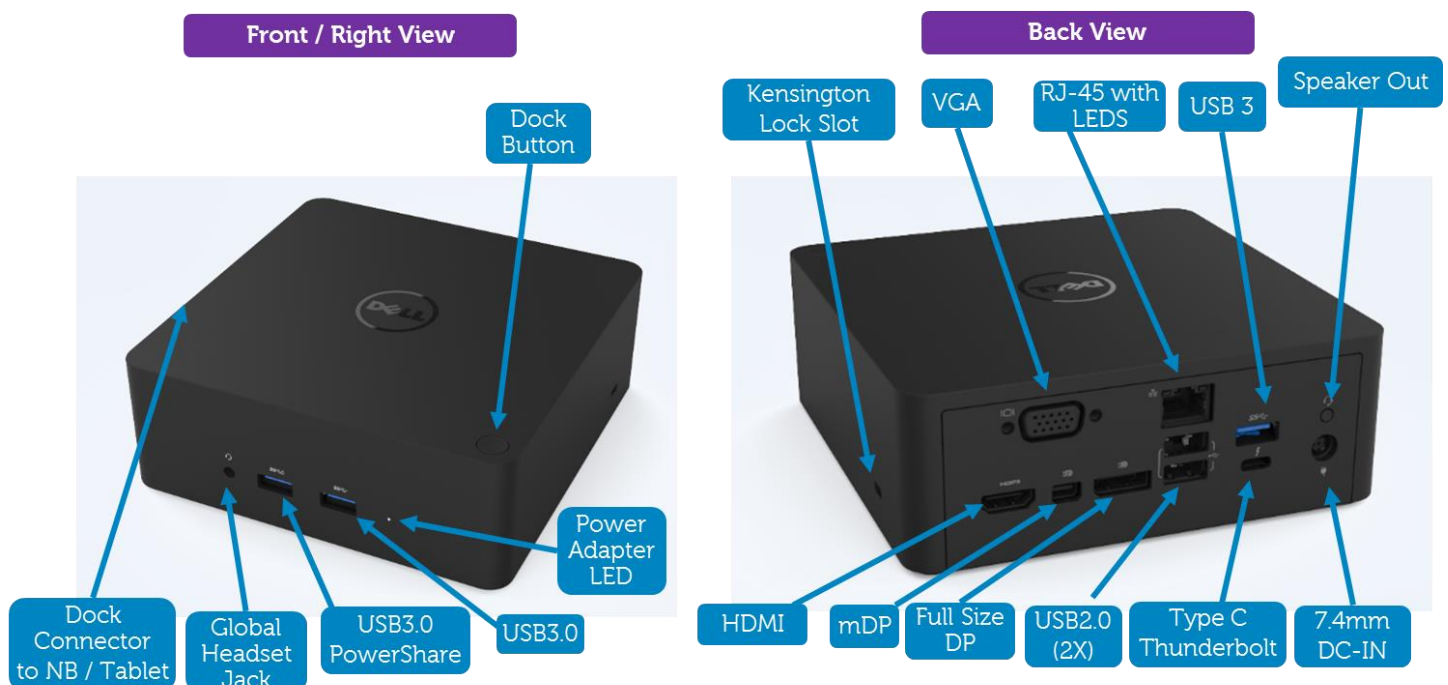


## Key Features:

- Supports up to three FHD displays or two 4K displays @60 Hz
- Supports faster data transfer of up to 40 Gbps, ideal for large files
- Common docking experience across platforms with USB-C port(s) having data, video, and power capabilities.
- Single cable for power and data (up to 130w)\*

*\*excludes Precision 7510/7710 – power adapter is also required for charging*

## Features



# 2015-2016 Next gen product compatibility

Dell Dock	Dell Thunderbolt™ Dock
Latitude 15 5000 Series (E5570 w/H series processors)	Latitude 5000 Series (E5570 w/H series processors)
Latitude 11 5000 Series 2-in-1 (5175/5179)	Latitude 13 7000 Series (7370)
Latitude 13 7000 Series (7370)	Latitude 12 7000 Series 2-in-1 (7275)
Latitude 12 7000 Series 2-in-1 (7275)	Precision 3510 (i5 processors only support E-Dock; i7/Xeon support E-Dock & Type-C)
Precision 3510 (i5 processors only support E-Dock; i7/Xeon support E-Dock & Type-C)	Precision 5510 Mobile Workstation
Precision 5510 Mobile Workstation	Precision 7510 and 7710 Mobile Workstations
Precision 7510 and 7710 Mobile Workstations	XPS 13, XPS 15 and XPS 12 Detachable
Venue Pro 8, 10	Alienware Gaming Notebooks 13/15/17
XPS 13, XPS 15 and XPS 12 Detachable	

## Compatibility Matrix

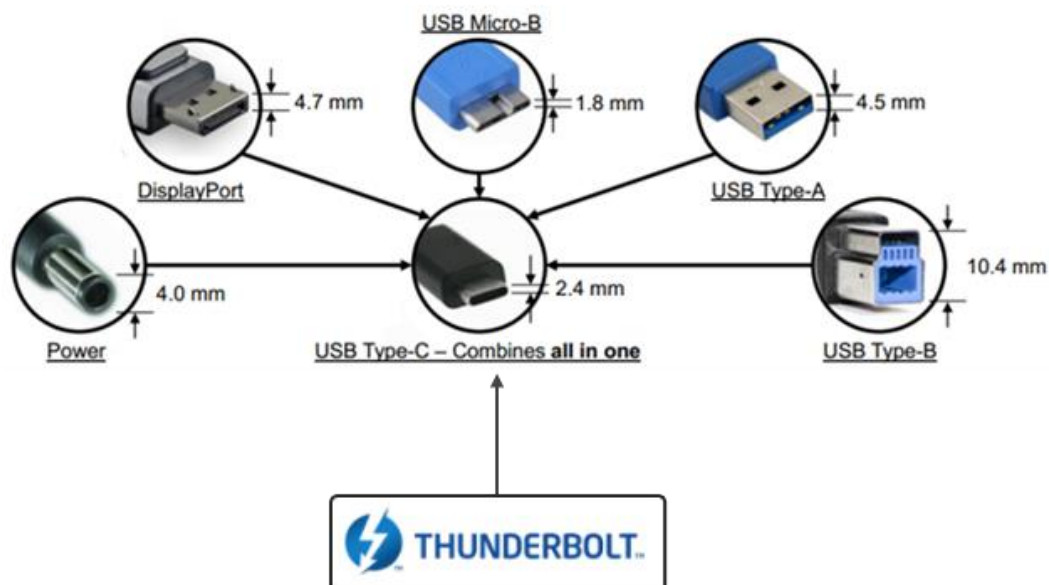
Platform		Docking Support (late 2015-2016)				
		Dell Tablet Dock	Dell E-Dock	Dell Wireless Dock	Dell Dock	Dell TBT Dock
Latitude	Latitude 13 7000 Series	X	X	✓ (w/Tri-band wireless)	✓	✓
	Latitude 13 7000 Series 2-n-1	✓	X	✓ (w/Tri-band wireless)	X	X
	Latitude 12 7000 Series 2-n-1	X	X	X	✓	✓
	Latitude 12/14 7000 Series	X	✓	✓ (w/Tri-band wireless)	X	X
	Latitude 15 5000 Series	X	✓	✓ (w/Tri-band wireless)	✓ (15H)	✓ (15H)
	Latitude 11 5000 Series 2-n-1	✓	X	X	✓	X
Precision	Precision 15 3000 Series	X	✓	X	✓	✓
	Precision 15 5000 Series	X	X	X	✓	✓
	Precision 15 7000 Series	X	✓	X	✓	✓
	Precision 17 7000 Series	X	✓	X	✓	✓
Venue	Venue 10 Pro	X	X	X	✓	X
	Venue 8 Pro	X	X	X	✓	X
XPS	XPS 12	X	X	X	✓	✓
	XPS 15	X	X	X	✓	✓
	XPS 13	X	X	X	✓	✓
AW	Alienware 13 R2	X	X	X	X	✓
	Alienware 15 R2	X	X	X	X	✓
	Alienware 17 R3	X	X	X	X	✓

\*E-Dock EOL 12/2018. All platforms will have transitioned to Dock Port over USB Type-C by E-Dock EOL.

\*\*Precision 3510 (i5 processors only support E-Dock; i7/Xeon support E-Dock & Type-C)

# Type-C Overview

- **Type C is a new type of connector**
  - New form factor that can replace any port on your system
  - Can support USB, DP, Thunderbolt, and power all over a single cable
    - › Port capabilities depend on electronics behind port, and in cable
    - › Devices require matching cable:
      - Non-TBT dock requires a non-TBT or universal cable when paired with Non-TBT or TBT device
      - TBT dock requires a universal or non-TBT cable when paired with non-TBT device.
      - TBT dock requires a universal or TBT cable when paired with a TBT device.
    - › Reversible plug orientation and cable direction
  - Cable functionality must match port functionality
- **Type C ports will live alongside existing Type A and Type B ports**
  - There will remain an installed base of Type A/Type B USB devices
- **Type C potential confusions**
  - Type C  $\neq$  Thunderbolt 3; the port could be USB, DP, and/or power
    - › For Precision, Type C = Thunderbolt
    - › For Latitude Sky Lake, Type C = Thunderbolt
    - › For Latitude Tablets, Type C = DisplayPort over USB-C
    - › For XPS, Type C = Thunderbolt
    - › May change in future generations
  - Type C  $\neq$  USB3.1, the port could be USB3 or even USB2
  - Type C  $\neq$  USB Power Delivery; the port has to have the power capabilities to support power delivery





# Industry Standards About USB Type-C\*

- Robust connector strong enough for laptops, tablets and larger platforms
- Reversible plug orientation and cable direction: Will not matter which end of the cable or which side of the connector you plug in
- Supports scalable power and performance to help future-proof your solution
- Slim form factor to support evolving design trends
- Addresses the elements required to implement and support USB Type-C™ receptacles, plugs and cables
- Enables new and exciting host and device form-factors where size, industrial design and style are important parameters

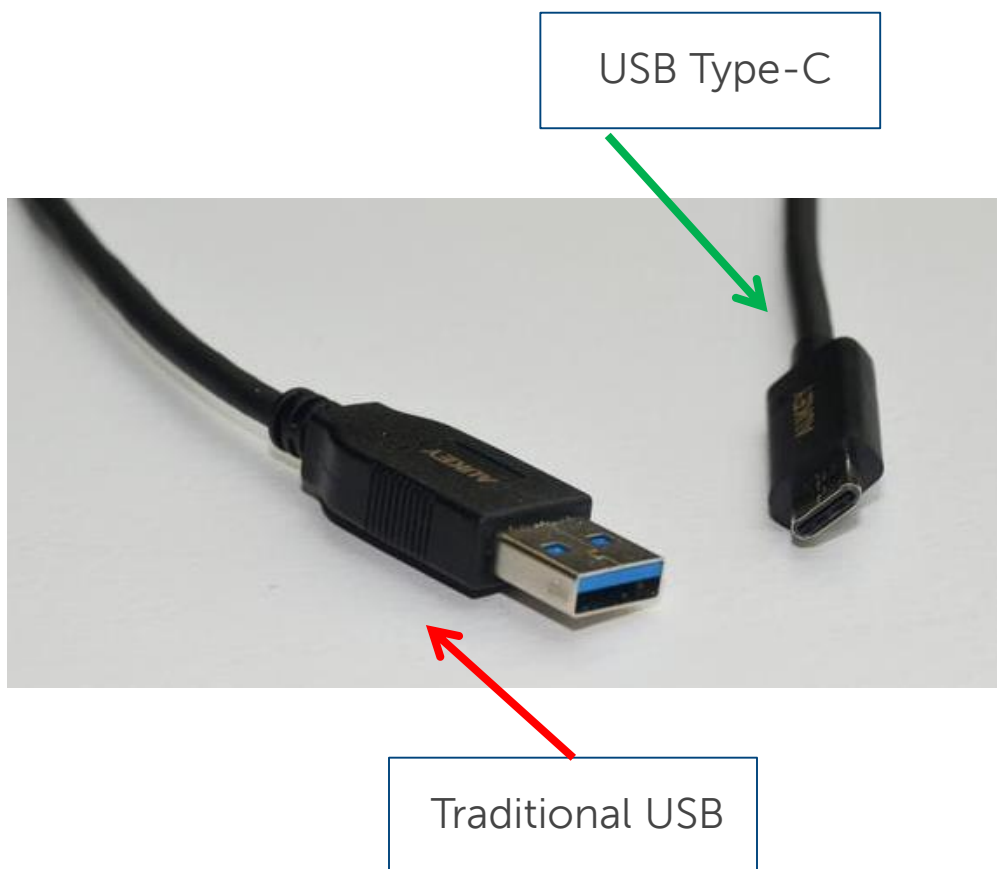
## USB Type-C Technology IS NOT:

### USB Type-C™ is not USB 3.1

- The USB Type-C™ cable and connector specification is a supplement to the USB 3.1 specification, however USB Type-C™ is not USB 3.1.

### USB Type-C™ is not USB Power Delivery

- USB Power Delivery is a protocol/hardware solution that increases USB power capabilities up to 100W.
- **If a product features USB Type-C™ it does not necessarily support USB Power Delivery and/or USB 3.1**



A solid blue rounded square with the word "Storage" written in white text inside it.

Storage

# Storage types



## Hard Disk Drives (HDDs)

- Refer to mechanical drives with internal, spinning discs that store data. They come in a variety of difference capacities (i.e. 500GB, 1TB), sizes (3.5", 2.5") and speeds (5400RPM, 7200RPM, 10k RPM, 15k RPM)

## Hybrid Drives or Solid-State Hybrid Drives (SSHD)

- Drives that are identical to standard spinning HDDs, but include a small amount of flash "Cache" storage (usually 8GB in size) in addition to the main storage (500GB or 1TB) to assist in "caching".
- The increased caching can boost performance in lighter workloads by storing files accessed repetitively (i.e. boot files, outlook files, etc.) on the small flash portion of the drive

## Solid-State Drives (SSDs)

- Refer to non-mechanical storage devices using similar techniques to storing data as RAM devices, but in a non-volatile, permanent method that won't lose data upon power-loss or shut down.
- Far superior in performance to HDDs and even SSHDs, but at an increase in cost.
- Because SSDs do not have moving parts, they withstand drops and other rugged activities significantly better than any HDD or SSHD

# Storage sizes

## 3.5" HDD (7200RPM Spinning Drives)

- The absolute cheapest \$/GB internal storage solution available typically found only in Desktops, Workstations and Server applications
- High-caps, up to 4TB, available in EUC

## 2.5" HDD (5400RPM, 7200RPM & Hybrid SATA Drives)

- Typically found in Notebooks, but can be in applications above
- Higher shock ratings vs 3.5" HDD with capacities up to 1TB & SED in EUC, and typically 7mm or 9.5mm thick

## 2.5" Solid State Drives (SSD) in SATA and SATA Express (coming soon)

- Typically found in Notebooks, but can be in applications above
- Capacities up to 512GB in EUC with the same dimensions as 2.5" HDD, but only 7mm thick

## mSATA Solid State Drives (SSD) in SATA

- Typically found in Ultrabooks/2-1, but can be in applications above
- Capacities up to 1TB, SED & Dual-drive configurations in EUC
- Same performance as 2.5", but with lower power rating

## M.2 (aka NGFF) Solid State Drives (SSD) in SATA & PCIe (coming soon)

- Typically found in Ultrabooks/2-1, but can be in applications above
- Capacities up to 1TB, SED & Dual-drive configurations in EUC

# SATA 3 is the interface used by most of our options today, but SSDs are transitioning to a new superfast PCIe interface

## SATA 3

- Used by all our HDDs, Hybrids and SSDs today
- Performance (throughput) maxes out at around 500MB/s, though HDDs/Hybrid never come close to max (both hybrid and standard spinning HDDs max around 100MB/s)

## PCIe

- Will be offered by M.2 2280 SSDs only, as current SATA SSDs have reached their interface limitations
- Mainstream offerings next year will primarily offer x2 (2 lane) offering up to 800MB/s, per lane (up to 1600MB/s total throughput)
- Premium offerings will offer x4 (4 lanes), offering up to 800MB/s, per lane (up to 3200MB/s total throughput)

## SATA Express (2.5" PCIe x2)

- Will be offered by SSDs only, as current SATA SSDs have reached their interface limitations
- The 2.5" SATA Express SSDs will use the same connector as SATA HDDs in next-gen platforms
- SATA Express is PCIe x2 (2 lane), offering up to 800MB/s, per lane (up to 1600MB/s total throughput)

# Need a more secure solution?

- Self-Encrypted Drives (aka SED or FDE, Full-Disk Encryption) are available in HDDs, SSHDs & SSDs
- Our SEDs are TCG OPAL 2.0 certified (the industry standard for hardware encryption)
- Our HDD (traditional "Spinning" drives) & SSHD (hybrid HDD) SEDs are also FIPS 140-2, Level 2 certified (the US Government "stamp of approval" for hardware encryption)
- Our SSD (Solid-State Drive) SEDs are not FIPS certified
- FIPS 140-2, Level 2 adds physical tamper-detecting labels on the drive, but not additional levels of encryption or data security
- With our OPAL SEDs all data is encrypted (including data in cache) via the onboard encryption engine, prior to data being stored

# Client BIOS – Data Wipe Support

**Summary:** CY15 platforms with internal Dell BIOS will support a user-initiated data wipe feature to wipe all internal drives directly from BIOS setup

## Feature Highlights:

- Supports internal storage devices directly connected to the motherboard, eMMC, and NVMe drive technologies using technology-specific wipe mechanisms
- Uses industry standard (NIST SP800-88) approved methods for data wipe, e.g. Secure Erase for SATA
- All connected and supported drives are wiped with one user operation after reboot from BIOS setup

**Data Wipe Platform Support – CY15:** Beaver Creek, Bluefin, Berlinetta, Bold Peak 2, Cod, Dino 2, Farallon, Goodyear SKL, Jayton, Loveland SKL, Miramar, Park City, Swordfish, Triggerfish, Whitefish



# Latitude Battery Technology

# Battery Overview

- 1 Power through the day with **Runtime** to spare- All day battery life



- 3 **Enhanced access** to power  
"Any source"

- Next gen small adaptors
- Power Companion
- Powerport IP

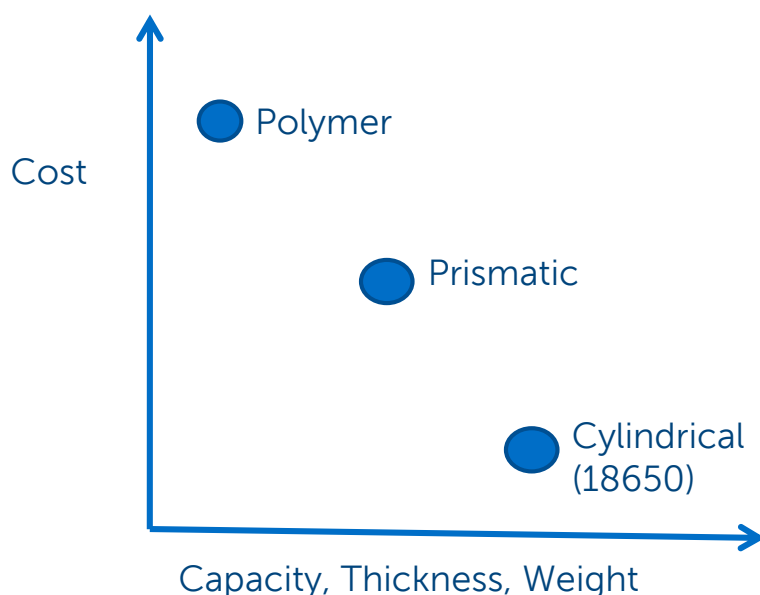
- 2 **Optimized Battery Performance**

Life span, smart battery management, and fast charging

## Battery Types

- **Lithium Ion**
  - Remains the battery type used in notebook PCs
  - Size & Shape are only difference between cylindrical, polymer, and prismatic
- **Silver-based**
  - Higher capacity, higher weight, lower life expectancy
  - Technology early in development – expect samples this year for testing
- **Fuel Cells**
  - Technology very early in development – years from practical use internal to the notebook
- **Solar Cells**
  - Requires large collection area and high intensity light
  - Not practical for internal notebook use at this time

# Battery Packaging Types



## Latitude Battery Technology Transition

- **What's happening:** Latitude 5000 and 7000 Series laptops have transitioned from standard size of 18650s (cylindrical) to variable sizes of prismatic and polymer batteries

18650s Standard size battery	vs.	Prismatic & polymer battery w/variable shapes & sizes
Used on previous generations of Latitude laptops		Used starting with current gen (E5x50/E7x50) and future generation 5000 & 7000 Series Latitude to best fit and utilize the chassis space
A majority of batteries used the standard 18650 cells for many years. It became common practice to describe the battery with the number of cells it contained - (i.e. <b>3/4/6/9 Cell</b> )		With variable sizes & energy densities of prismatic & polymer cells, the most accurate method to communicate the battery rating is <b>Watt-Hour (Wh or Whr)</b>

- **Key benefits of Prismatic and polymer batteries:**
  - **Thinner Z height** - Prismatic and polymer batteries are available in many different sizes, thinness and dimensions which help notebooks achieve a thinner Z height compared to 18650 batteries
  - **Flexibility:** Greater Z height thinness achievable
    - › Prismatic and polymer batteries have flexibility that 18650s don't
    - › A 18650 cell is 18+mm in diameter. A typical system with 18650 batteries will be at least 23+mm thick
    - › Common prismatic & polymer cells are 4-6 mm thin allowing notebooks to achieve a thinner z height not achievable with 18650 batteries
- **Importance of using the right terminology (Whr vs. Cell count):**
  - Based on size and energy density, the rating (Whr) of prismatic and polymer batteries can vary greatly for a given cell count
  - For example, the Latitude 12 5000 Series (E5250) has the option of a 51Whr or a 62Whr battery, both 4 cell batteries. The 62Whr offers almost 3 hours greater battery life vs. the 51Whr.

# Battery Examples

18650s Standard size battery



Prismatic & polymer battery



## Terminology

- **Cell:** The main component of a notebook battery. Notebook batteries are made up of several cells.
- **Amp Hour (Ah):** The capability rating of a battery.
- **Watt Hour (Whr):** The unit of measure defining the amount of energy a battery can provide in a specified time.
- **Capacity:** The total amount of energy that can be withdrawn from a fully charged cell or battery.
- **Battery Runtime or Life (hours):** The amount of time a battery will power a system before requiring a charge.
  - NOTE: Battery runtime varies by System configuration, System usage
  - Temperature of battery (should not be used in extreme hot or cold)
- **Battery Lifetime (months):** The time it takes a battery to degrade to a performance level that is unacceptable to a customer.
- The runtime of a battery decreases based on the way a customer uses it
- Dell batteries are spec'd to last at least 300 full cycles before they fall under 75% capacity
- Cycle: One complete discharge/charge is a cycle. Partial discharges/charges aggregate to 1 complete cycle.

### NOTES:

Old battery technology required full discharge in order to maximize runtime. Lithium Ion batteries do not have this requirement.

ExpressCharge requires high quality cells to insure proper performance. While ExpressCharge is demanding of the cells, they are not pushed past manufacturer recommended limits.

**ExpressCharge™:** Dell trademarked technology for fast battery charging. Charges a battery to 80% in about an hour if the system is turned off.



# Storage Life

Latitude used to ship batteries un-installed. It is true that after some shelf time the battery can drain and then never be used again. When 5000 series moved to internal batteries, battery storage mode was implemented.

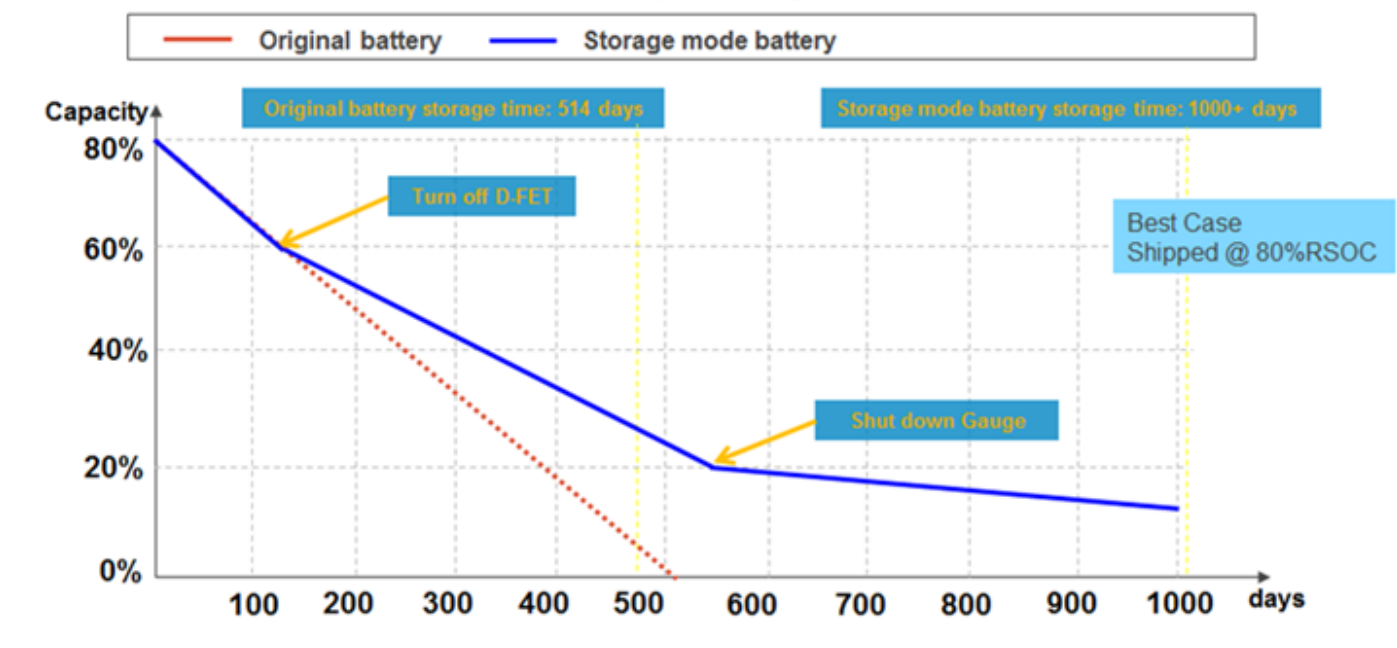
## Key Benefits

- Long Shelf life over 1000+ days with battery still at ~20% capacity
- Reduce packaging as battery is installed
- Provide more support for the battery during shipment

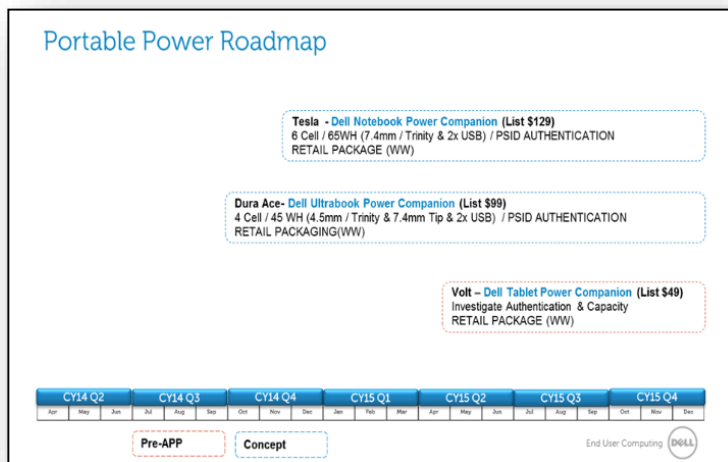
## How it works...

- After 14days, battery D-FET will turn off.
- When battery capacity is drained to 20% RSOC and battery gas gauge will shut down.
- Not at risk no charge until 1000+days.
- There is no need to remove battery with storage mode feature.

## 3cell 43Wh ( 3900mAh ) NB battery storage time comparison



# Power Companion for extended battery life



## Compact power bank for multiple devices

- Replacing 2<sup>nd</sup> battery use
- Next generation Power Companion will serve as a single device for both power bank and AC adaptor for multiple devices

## People need more and more power

- As many devices have integrated battery, power bank is useful for mobile and traveling customers
- Multi-device charging, especially USB connection, is a huge plus for customers

## Offer as an upsell to Dell customers

- Portable Power Companion will be a great S&P upsell for mobile customers
- Replacing 2<sup>nd</sup> battery need can give flexibility for Dell laptop (thinner form factor by integrating or field replaceable)

## What is it?

- Designed to keep highly mobile professionals productive while on-the-go, enabling users to take extra power virtually anywhere.
- The Dell Power Companion allows you to power and charge Latitude laptops and other devices simultaneously, even while packed inside your bag.
- With 45Whr/4 cell and 65Whr/6 cell battery options, the Dell Power Companion provides a reliable, powerful backup power solution.

Key Features	Customer Benefit
<b>Extra Power Virtually Anywhere</b>	Small and compact, the Dell Power Companion is easy to take with on the go, allowing you to have extra power, without any added bulk.
<b>Extend Battery Life on-the-go</b>	Designed to fit within the custom-designed sleeves within the Dell Premier Backpack and Dell Premier Briefcases, this handy power solution seamlessly fits into your mobile office and on-the-go lifestyle.
<b>Multi-device charging</b>	With the ability to plug in your laptop and 2 other devices via the 2 USB ports, you can plug in and simultaneously charge up to 3 devices or charge different ones at different times.



# Two Power Companion Options Available

## Key Specifications

### Dell Portable Power Companion (12000 mAh)

- 45Wh (4 Cell Battery)
- 12000 mAh power capacity
- 5 point LED battery life indicator
- 2 x USB slots
- Compatible with: Latitude 7000 Series 2-in-1, Latitude 7000 Series, Latitude 5000 Series

### Dell Portable Power Companion (18000 mAh)

- 65Wh (6 Cell Battery)
- 18000 mAh power capacity
- 5 point LED battery life indicator
- 2 x USB slots
- Compatible with: Latitude 7000 Series 2-in-1, Latitude 7000 Series, Latitude 5000 Series & Latitude 3000 Series



Get significant extended battery life on Dell Latitude when combined the Dell Power Companion (18000mAh)\*

Product	Maximum battery life*	Configuration tested
Latitude 12 7000 Series (E7250)	17 hours and 12 minutes	4-cell battery, 128GB SSD
Latitude 14 7000 Series (E7450)	22 hours and 7 minutes	4-cell battery, 500GB Hybrid HDD
Latitude 13 7000 Series 2-in-1 (7350)	21 hours and 14 minutes	3-cell and 2-cell battery, 128GB SSD
Latitude 12 5000 Series (E5250)	26 hours and 34 minutes	4-cell battery, 128GB mSATA
Latitude 14 5000 Series (E5450)	28 hours and 2 minutes	4-cell battery, 128GB mSATA, UMA graphics
Latitude 15 5000 Series (E5450)	23 hours and 6 minutes	4-cell battery, 128GB SSD, discrete graphics
Latitude 14 3000 Series (3450)	18 hours and 13 minutes	4-cell battery, 500GB 7200 rpm SATA3
Latitude 15 3000 Series (3450)	16 hours and 48 minutes	4-cell battery, 500GB 7200 rpm SATA3

\*Extended hour calculation estimate is based on Latitude system and Dell Power Companion (18000mAh) model PW7015L (sold separately) battery capacity ratio and published Mobile Mark 12 or Mobile Mark 14 battery life scores.

\*Dell Power Companion is full charge (5 LED) & system is full charge

\*Dell Power Companion is connected only to one System and not connected to any other USB devices simultaneously

# Battery Q&A

- 1. What are the differences between 18650s (cylindrical) and lithium polymer batteries (flat batteries)?**
  - Size and shape. 18650 cylindrical was the most popular standard cell used in notebook for many years. Similar to "AA", "AAA" standards in non-rechargeable. With introduction of Ultrabook and popularity of tablet, many new systems use flat type cells so our products can be made thinner. All are based on Li-Ion chemistry.
- 2. What are the benefits of one battery type vs. another?**
  - In addition to making our systems thinner, prismatic and polymer cells come in many sizes (length x width). This allows us greater flexibility when designing our notebook computers.
- 3. Why use Whr vs. cell count?**
  - Because cells come in many sizes, the amount of stored energy per cell can vary greatly. In addition we are making rapid advancement in performance, so even with similar cell count, the actual runtime will vary based on technology generation.
- 4. How are the cycles calculate on batteries for recharging? We say we can get 300 cycle what % does the battery have to drop to count as a cycle when recharging?**
  - A cycle is accumulated on the battery when it discharges 100% of its capacity. For example, 3 separate discharge events of 30%, 20%, 50% would count as 1 cycle, even if the battery was charged (or partially charged) between each partial discharge.
- 5. What makes battery ExpressCharge capable?**
  - Express charge means the battery is able to charge to 80% in about 1 hour and will be fully charged in 2hrs. When our reliability group qualifies an express charge battery it means it meets all original cycling and performance requirements with fast charge as an added feature.
- 6. Are all prismatic batteries li polymer? If so why us the term prismatic?**
  - Prismatic refers to a flat battery packaged in a deep drawn aluminum can. It is a higher level of tooling investment and therefore automation. Polymer refers to the flexible, heat sealable pouch that offers greatest flexibility in cell/battery pack size.
  - Both prismatic and polymer are based on Li-Ion cell chemistry.
- 7. What makes a battery LLC?**
  - Several years ago we developed a qualification procedure for batteries sold with a 3yr warranty. Long Calendar Life batteries also called long life cycle (LLC) batteries, means the battery has passed enhanced reliability testing including 1000 cycles at room temp, 800 cycles at 40degC, also extended cycling at 5degC and an extended cycling/storage testing.
- 8. Power companions. History/background and a bit of technical information**
  - With evolution of system design, transition to thin systems with captured batteries, and removal of bay and traditional docking connector, it has become more difficult to offer upsell battery runtime, spares, or other extended battery solutions integrated into standard systems. Also there was a growing popularity for battery extenders in the smartphone space. This led us to develop the power companion. The brand experience team has collateral for the power companion.
- 9. How is our battery testing conducted?**
  - Various testing by phase. System integration, reliability qualification testing, etc...
  - runtime testing is conducted by our performance lab for selected system configurations using the mobile mark benchmark.
- 10. What is charge time for LLC non-express charge?**
  - Our customer facing claim is full in 3 hours. A standard charge battery will be at 80% state of charge in approx. 1hr 40min. (express charge is 80% in 1hr)
- 11. What are trade offs between LLC and standard express charge capable batteries?**
  - Batteries qualified for a 3yr warranty are typically about 10% less runtime (in the same volume) than a standard 1yr warranty battery. Long warranty batteries use a standard charge rate, not express charge.
- 12. Where can we find information on BatMan?**
  - Dell Command Power Monitor (DCPM) is the user interface for our battery management (batman) tools. There is a link to DCPM in the slide deck.
- 13. Best practices for battery charge/discharge are commonly asked. Should they have the batteries discharge completely or can they keep them charging at will? The question also applies to the battery companions**
  - All our notebook batteries are smart batteries, meaning they will terminate charge when full and isolate from the charger automatically. Partial cycles are ok. In Batman we have settings to further optimize battery performance based on user needs.

# Benchmarks





Latitude  
Battery  
Benchmarks

# Latitude 7000 Series E7250/7250

## Battery Life

### Product Claim

- **3-cell battery, 39 Whr\***
  - Battery life: up to 7 hours and 48 minutes\*\* of battery life with 3-cell battery
- **4-cell battery, 52 Whr\***
  - Battery life: up to 9 hours and 3 minutes\*\* of battery life with optional 4-cell battery

### MobileMark 2012 Tests

- 3 Cell/39 Whr Latitude 7000 Series E5250  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i3-5010U (2.1 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit
  - 128GB SSD
- 4 Cell/52 Whr Latitude 7000 Series E5250  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i5-5200U (2.2 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit
  - 128GB SSD

\*The stated Watt Hour (Whr) is not an indication of battery life

\*Based on testing using the Mobile Mark 2012 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use

# Latitude 7000 Series E7250/7250

## Battery life with Dell Power Companion

### Product Claim

- 3-cell battery, 39 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 13 hours of battery life with 3-cell battery, 128GB SSD and Dell Power Companion (12000mAh) PW7015M (sold separately)
- 3-cell battery, 39 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 17 hours and 10 minutes of battery life with 3-cell battery, 128GB SSD and Dell Power Companion (18000mAh) PW7015L (sold separately)
- 4-cell battery, 52 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 14 hours and 33 minutes of battery life with 4-cell battery, 128GB SSD, and Dell Power Companion (12000mAh) PW7015M (sold separately)
- 4-cell battery, 52 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 17 hours and 12 minutes of battery life with 4-cell battery, 128GB SSD, and Dell Power Companion (18000mAh) PW7015L (sold separately)

\*Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 12 battery life scores.

\*PwC is full charge (5 LED) & system is full charge

\*PwC is connected only to one System and not connected to any other USB devices simultaneously

# Latitude 7000 Series E7450

## Battery Life

### Product Claim

- **3-cell battery, 40 Whr\***
  - Battery life: up to 9 hours and 52 minutes\*\* of battery life with 3-cell battery
- **4-cell battery, 54 Whr\***
  - Battery life: up to 11 hours and 51 minutes\*\* of battery life with optional 4-cell battery

### MobileMark 2012 Tests

- 3 Cell/40 Whr Latitude 7000 Series E7450  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i3-5010U (2.1 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit
  - 256GB SSD
- 4 Cell/54 Whr Latitude 7000 Series E7450  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i5-5200U (2.2 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64 bit
  - 500GB Hybrid

\*The stated Watt Hour (Whr) is not an indication of battery life.

\*Based on testing using the Mobile Mark 2012 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 7000 Series E7450

## Battery life with Dell Power Companion

### Product Claim

- 3-cell battery, 40 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 17 hours and 30 minutes of battery life with 3-cell battery, 256GB SSD and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 3-cell battery, 40 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 21 hours and 25 minutes of battery life with 3-cell battery, 256GB SSD and Dell Power Companion (18000mAh) PW7015L (sold separately)\*
- 4-cell battery, 54 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 18 hours and 39 minutes of battery life with 4-cell battery, 500GB Hybrid HDD, and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 4-cell battery, 54 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 22 hours and 7 minutes of battery life with 4-cell battery, 500GB Hybrid HDD, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*

\*Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 12 battery life scores.

\*PwC is full charge (5 LED) & system is full charge

\*PwC is connected only to one System and not connected to any other USB devices simultaneously



# Latitude 5000 Series E5250/5250

## Battery Life

### Product Claim

- **3-cell battery, 38 Whr\***
  - Battery life: up to 9 hours and 41 minutes\*\* of battery life with 3-cell battery
- **4-cell battery, 51 Whr\***
  - Battery life: up to 13 hours and 54 minutes\*\* of battery life with 4-cell battery

### MobileMark 2014 Tests

- **3 Cell/38 Whr Latitude 5000 Series 5250**  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core i3-5010U (Dual Core, 2.1GHz, 3M cache, 15W)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64bit
  - 128GB mSATA
  - BIOS version: A03
- **4 Cell/51 Whr Latitude 5000 Series E5250**  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core i7-5600U (Dual Core, 2.6 GHz, 4M cache, 15W)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64bit
  - 128GB mSATA
  - BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life  
Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 5000 Series E5250/5250

## Battery Life

### Product Claim

- 3-cell battery, 40 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 17 hours and 30 minutes of battery life with 3-cell battery, 256GB SSD and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 3-cell battery, 38 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 17 hours and 34 minutes of battery life with 3-cell battery, 128GB mSATA and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 3-cell battery, 38 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 21 hours and 37 minutes of battery life with 3-cell battery, 128GB mSATA and Dell Power Companion (18000mAh) PW7015L (sold separately)\*
- 4-cell 51 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 22 hours and 15 minutes of battery life with 4-cell battery, 128GB mSATA, and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 4-cell 51 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 26 hours and 34 minutes of battery life with 4-cell battery, 128GB mSATA, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*

\* Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 14 battery life scores.

# Latitude 5000 Series E5250/5250

## Battery Life

### Product Claim

- : **4-cell battery, 62 Whr\***
  - Battery life: up to 16 hours and 36 minutes\*\* of battery life

### MobileMark 2014 Tests

- 4 Cell/62 Whr Latitude 5000 Series E5250 Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core i5-5200U (Dual Core, 2.2 GHz, 3M cache, 15W)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64bit
  - 128GB mSATA
  - BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life. Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

The specific configuration tested must be available for sale in the region / country where this claim is made, otherwise that region / country cannot use this battery life claim because customer would not be able to configure their system to achieve the same result.

# Latitude 5000 Series E5450/5450

## Battery Life

### Product Claim

- **3-cell battery, 38 Whr\***

- Battery life: up to 10 hours and 41 minutes\*\* of battery life with 3-cell battery with UMA graphics

- **4-cell battery, 51 Whr\***

- Battery life: up to 14 hours and 37 minutes\*\* of battery life with 4-cell battery with UMA graphics

### MobileMark 2014 Tests

- 3 Cell/38 Whr Latitude 5000 Series 5450 Configuration tested:

- Intel Integrated graphics
- Processor: 5th gen Intel® Core i5-5200U (Dual Core, 2.2 GHz, 3M cache, 15W)
- UMA graphics
- 4GB DDR3L 1600MHz memory (1 DIMM)
- Windows 8.1 Pro 64bit
- 128GB mSATA
- BIOS version: A03

- 4 Cell/51 Whr Latitude 5000 Series E5450 Configuration tested:

- Intel Integrated graphics
- Processor: 5th gen Intel® Core i5-5200U (Dual Core, 2.2 GHz, 3M cache, 15W)
- UMA graphics
- 4GB DDR3L 1600MHz memory (1 DIMM)
- Windows 8.1 Pro 64 bit
- 128GB mSATA
- BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life

Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 5000 Series E5450/5450

## Battery Life

### Product Claim

- 3-cell battery, 38 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 19 hours and 28 minutes of battery life with 3-cell battery, 128GB mSATA, UMA graphics, and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 3-cell battery, 38 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 22 hours and 50 minutes of battery life with 3-cell battery, 128GB mSATA, UMA graphics, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*
- 4-cell 51 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 23 hours and 29 minutes of battery life with 4-cell battery, 128GB mSATA, UMA graphics, and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 4-cell 51 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 28 hours and 2 minutes of battery life with 4-cell battery, 128GB mSATA, UMA graphics, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*

\* Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 14 battery life scores.



# Latitude 5000 Series E5450/5450

## Battery Life

### Product Claim

- : **4-cell battery, 62 Whr\***
  - Battery life: up to 14 hours and 57 minutes\*\* of battery life

### MobileMark 2014 Tests

- 4 Cell/51 Whr Latitude 5000 Series E5450 Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core i5-5200U (Dual Core, 2.2 GHz, 3M cache, 15W)
  - UMA graphics
  - 8GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64 bit
  - 128GB mSATA
  - BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life  
Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.  
The specific configuration tested must be available for sale in the region / country where this claim is made, otherwise that region / country cannot use this battery life claim because customer would not be able to configure their system to achieve the same result.

# Latitude 5000 Series E5550/5550

## Battery Life

### Product Claim

- **3-cell battery, 38 Whr\***
  - Not tested at this time
- **4-cell battery, 51 Whr\***
  - Battery life: up to 12 hours and 03 minutes\*\* of battery life with 4-cell battery with discrete graphics

### MobileMark 2014 Tests

- 3 Cell/38 Whr Latitude 5000 Series E5550 Configuration tested:
  - Not tested at this time
- 4 Cell/51 Whr Latitude 5000 Series E5550 Configuration tested:
  - Intel Integrated graphics (primary)
  - Processor: 5th gen Intel® Core i5-5300U (Dual Core, 2.3 GHz, 3M cache, 15W), vPro
  - NVIDIA discrete graphics (secondary)
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64bit
  - 128GB SSD
  - BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life

Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 5000 Series E5550/5550

## Battery Life

### Product Claim

- 4-cell 51 Whr and Dell Power Companion (12000mAh) PW7015M
  - Battery life: up to 19 hours and 22 minutes of battery life with 4-cell battery, 128GB SSD, discrete graphics, and Dell Power Companion (12000mAh) PW7015M (sold separately)\*
- 4-cell 51 Whr and Dell Power Companion (18000mAh) PW7015L
  - Battery life: up to 23 hours and 6 minutes of battery life with 4-cell battery, 128GB SSD, discrete graphics, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*

\* Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 14 battery life scores.

# Latitude 5000 Series E5550/5550

## Battery Life

### Product Claim

- : **4-cell battery, 62 Whr\***
  - Battery life: up to 13 hours and 20 minutes\*\* of battery life

### MobileMark 2014 Tests

- 4 Cell/51 Whr Latitude 5000 Series E5550 Configuration tested:
  - Intel Integrated graphics (primary)
  - Processor: 5th gen Intel® Core i5-5200U (Dual Core, 2.2 GHz, 3M cache, 15W), vPro
  - NVIDIA discrete graphics (secondary)
  - 8GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 Pro 64bit
  - 256GB SSD
  - BIOS version: A03

The stated Watt Hour (Whr) is not an indication of battery life. Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

The specific configuration tested must be available for sale in the region / country where this claim is made, otherwise that region / country cannot use this battery life claim because customer would not be able to configure their system to achieve the same result.

# Latitude 7000 Series E7250/7250

## Battery Life

### Product Claim

- **3-cell battery, 39 Whr\***
  - Battery life: up to 7 hours and 48 minutes\*\* of battery life with 3-cell battery
- **4-cell battery, 52 Whr\***
  - Battery life: up to 9 hours and 3 minutes\*\* of battery life with optional 4-cell battery

### MobileMark 2012 Tests

- 3 Cell/39 Whr Latitude 7000 Series E5250  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i3-5010U (2.1 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit
  - 128GB SSD
- 4 Cell/52 Whr Latitude 7000 Series E5250  
Configuration tested:
  - Intel Integrated graphics
  - Processor: 5th gen Intel® Core™ i5-5200U (2.2 GHz)
  - UMA graphics
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit
  - 128GB SSD

\*The stated Watt Hour (Whr) is not an indication of battery life

\*Based on testing using the Mobile Mark 2012 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use



# Latitude 15 3000 Series 3550 w/Broadwell Battery Life

## Product Claim

- **3-cell (43WHr\*) battery**
  - Battery life: up to 7 hours and 15 minutes<sup>1</sup>
- **4-cell (58WHr\*) battery**
  - Battery life: up to 9 hours and 18 minutes<sup>2</sup>

## MobileMark 2014 Tests

- Latitude 3550 Configuration tested:
  - Battery: 3 Cell, Vendor: SDI
  - Processor: 5th Generation Intel® Core™ i3-5005U Processor
  - LCD display: [HD] 1366X768 Touch, vendor: CMN
  - Primary Graphics: Intel
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows 8.1 64bit Professional
  - 500GB 7200rpm SATA3
  - BIOS version: A02
- Latitude 3550 Configuration tested:
  - Battery: 4 Cell, Vendor: SDI
  - Processor: 5th Generation Intel® Core™ i5-5200U Processor
  - LCD display: [HD] 1366X768 Touch, vendor: CMN
  - Primary Graphics: Intel
  - 8GB (2x4GB) DDR3L 1600MHz memory (2 DIMMs)
  - Windows® 8.1 64bit Professional
  - 500GB 7200rpm SATA3
  - BIOS version: A02

### Please note:

- Battery size must be called out in the claim itself, since there is a choice of battery size.
- The specific configuration tested must be available for sale in the region / country where this claim is made, otherwise that region / country cannot use this battery life claim because customer would not be able to configure their system to achieve the same result.

\*The stated Watt Hour (WHr) is not an indication of battery life

<sup>1</sup>Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

<sup>2</sup>Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 15 3000 Series 3550 w/Broadwell plus Power Companion

## Product Claim

- **3-cell battery, 43 Whr and Dell Power Companion (18000mAh) PW7015L**
  - Battery life: up to 15 hours and 8 minutes of battery life with 3-cell battery, optional 500GB 7200 rpm SATA3, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*
- **4-cell 58 Whr and Dell Power Companion (18000mAh) PW7015L**
  - Battery life: up to 16 hours and 48 minutes of battery life with optional 4-cell battery, optional 500GB 7200 rpm SATA3, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*MobileMark 2012 Tests

\* Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 14 battery life scores.

\*PwC is full charge (5 LED) & system is full charge

\*PwC is connected only to System for at once and not connected to any other USB devices simultaneously

\*Extended hour calculation is based on PwC/System battery capacity ratio, PwC gauge % and estimated from system battery life claim from MM2014 test

# Latitude 14 3000 Series 3450 w/Broadwell Battery Life

## Product Claim

- **3-cell (43WHr\*) battery**
  - Battery life: up to 7 hours and 25 minutes<sup>1</sup>
- **4-cell (58WHr\*) battery**
  - Battery life: up to 10 hours and 05 minutes<sup>2</sup>

## MobileMark 2014 Tests

- Latitude 3450 Configuration tested:
  - Battery: 3 Cell, Vendor: Simplo
  - Processor: Intel® Celeron™ 3205U Processor
  - LCD display: [HD] 1366X768 Touch, vendor: AUO
  - Primary Graphics: Intel
  - 4GB DDR3L 1600MHz memory (1 DIMM)
  - Windows® 8.1 64bit Professional
  - 500GB 5400rpm Hybrid SATA3
  - BIOS version: A03
- Latitude 3450 Configuration tested:
  - Battery: 4 Cell, Vendor: SDI
  - Processor: 5th gen Intel® Core™ i7-5500U Processor
  - LCD display: [HD] 1366X768 Touch, vendor: AUO
  - Primary Graphics: Intel
  - 8GB (2x4GB) DDR3L 1600MHz memory (2 DIMM)
  - Windows® 8.1 64bit Professional
  - 500GB 7200rpm SATA3
  - BIOS version: A03

### Please note:

- Battery size must be called out in the claim itself, since there is a choice of battery size.
- The specific configuration tested must be available for sale in the region / country where this claim is made, otherwise that region / country cannot use this battery life claim because customer would not be able to configure their system to achieve the same result.

\*The stated Watt Hour (WHr) is not an indication of battery life

1. Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

2. Based on testing using the Mobile Mark 2014 battery life benchmark test. For more information about this benchmark test, visit [www.bapco.com](http://www.bapco.com). Test results should be used only to compare one product with another and are not a guarantee you will experience the same battery life. Battery life may be significantly less than the test results and varies depending on your product's configuration, software, usage, operating conditions, power management settings and other factors. Maximum battery life will decrease with time and use.

# Latitude 14 3000 Series 3450 w/Broadwell plus Power Companion

## Product Claim

- **3-cell battery, 43 Whr and Dell Power Companion (18000mAh) PW7015L**
  - Battery life: up to 15 hours and 8 minutes of battery life with 3-cell battery, optional 500GB 7200 rpm SATA3, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*
- **4-cell 58 Whr and Dell Power Companion (18000mAh) PW7015L**
  - Battery life: up to 16 hours and 48 minutes of battery life with optional 4-cell battery, optional 500GB 7200 rpm SATA3, and Dell Power Companion (18000mAh) PW7015L (sold separately)\*MobileMark 2012 Tests

\* Extended hour calculation estimate is based on system to Dell Power Companion battery capacity ratio and published Mobile Mark 14 battery life scores.

\*PwC is full charge (5 LED) & system is full charge

\*PwC is connected only to System for at once and not connected to any other USB devices simultaneously

\*Extended hour calculation is based on PwC/System battery capacity ratio, PwC gauge % and estimated from system battery life claim from MM2014 test

OptiPlex

CPU Crosswalk

Haswell-Refresh



# OptiPlex 9020 HSW & 9020 HSW-R CPU Sysmark 12 Crosswalk

OptiPlex 9020 Haswell Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
<b>MT, SFF</b>				
GSP	X	X	<b>239</b>	Intel® Core™ i7-4770, QC/8MB/8T/3.4GHz, 84W
GSP	X	X	<b>211</b>	Intel® Core™ i5-4670, QC/6MB/4T/3.4GHz, 84W
GSP	X	X	<b>201</b>	Intel® Core™ i5-4570, QC/6MB/4T/3.2GHz, 84W

Performance Improvement

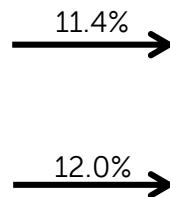


OptiPlex 9020 Haswell Refresh Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
<b>MT, SFF</b>				
GSP	X	X	<b>247</b>	Intel Core™ i7-4790 QC/8MB/8T/3.6GHz, 84W
GSP	X	X	<b>217</b>	Intel Core™ i5-4690 QC/6MB/4T/3.5GHz, 84W
GSP	X	X	<b>208</b>	Intel Core™ i5-4590 QC/6MB/4T/3.3GHz, 84W
GSP		X	<b>167</b>	Intel Core™ i3-4150 DC/3MB/4T/3.5GHz, 54W

# OptiPlex 7010 IVB & 7020 HSW-R CPU Sysmark 12 Crosswalk

OptiPlex 7010 Ivy Bridge Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
GSP	X		<b>219</b>	Intel Core i7-3770 QC/8MB/8T 3.4GHz, 77W
GSP	X		<b>214</b>	Intel Core i7-3770s QC/8M/8T 3.1GHz, 65W
GSP	X		<b>192</b>	Intel Core i5-3570 QC/6M/4T 3.4GHz, 77W

Performance Improvement



OptiPlex 7020 Haswell Refresh Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
<b>MT &amp; SFF only</b>				
GSP		X	<b>244</b>	Intel Core™ i7-4790 QC/8MB/8T 3.6GHz, 84W
GSP			<b>215</b>	Intel® Core™ i5-4690 QC/6MB/4T 3.5GHz, 84W
GA		X	<b>164</b>	Intel® Core™ i3-4150 DC/3MB/4T 3.5GHz, 54W
		X	<b>125</b>	Intel® Pentium™ G3240 DC/2MB/2T 3.1GHz, 65W

# OptiPlex 3020 HSW & 3020 HSW-R CPU Sysmark 12 Crosswalk

OptiPlex 3020 Haswell Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
<b>MT, SFF</b>				
GSP		X	<b>189</b>	Intel® Core™ i5-4570, QC/6MB/4T/3.2GHz, 84W
GA		X	<b>140</b>	Intel Core i3-4130 DC/3M/4T/3.4Hz, 54W
			<b>122</b>	Intel Pentium™ G3220 DC/3M/2T/3.0GHz, 53W
			<b>113</b>	Intel Celeron G1820 2C/2M/2T/2.7GHz, 53W

Performance Improvement



OptiPlex 3020 Haswell Refresh Sysmark 12				
GSP/GA	vPro	FHC	Sys. 12	
<b>MT, SFF</b>				
GSP		X	<b>205</b>	Intel Core™ i5-4590 QC/6MB/4T/3.3GHz, 84W
GA		X	<b>146</b>	Intel Core™ i3-4150 DC/3MB/4T/3.5GHz, 54W
			<b>125</b>	Intel® Pentium™ G3240 DC/2MB/2T 3.1GHz, 65W
			<b>115</b>	Intel Celeron G1840 2C/2M/2T/2.8GHz, 53W

# System Configurations used for testing Back-up

Windows Version	Win8.1 Professional
32-bit or 64-bit	64bit
Primary Graphics	Onboard
Secondary Graphics (if present, example: Optimus)	N/A
Secondary Graphics Driver (if present, example: Optimus)	N/A
Total Memory	16G
Number of Memory Channels	1,2 (DIMM,8GB,1600,2RX8,4G,DDR3L,U DPN: 66GKY)
Primary Hard Drive Vendor and Model	SSDR,128G,S3,7MM,SMSNG,PM851
Primary Hard Drive Dell Part Number	X4W7P
Primary Hard Drive Storage	128GB
Primary Hard Drive Interface Type (SATA2, SATA3, etc)	SSD
Secondary Storage Vendor and Model (if present)	N/A
Secondary Storage Capacity (if present)	N/A
Wireless LAN Vendor	N/A
Wireless LAN Model	N/A
Wireless LAN Driver and Dell Revision	N/A
Bluetooth Vendor	N/A
Bluetooth Model	N/A
Bluetooth Driver and Dell Revision	N/A

Precision

# Precision M6800 Claims

- The Dell Precision M6800 with Dell Precision Optimizer provides 14% better performance with Autodesk 3DS Max
- \*As measured using SPECapc 3DS Max 2014 GPU Composite running Autodesk 3DS Max on Windows 7 64-bit Professional SP1, comparing test results between a M6800 system with i7-4930MX 4C 3.2 GHz, 4x4 GB 1600, Quadro K3100M, 250 GB mSATA, 750 GB 7200 HDD, A03 BIOS with the Dell Precision Optimizer 3DS Max Performance Profile on and the same system with factory default settings.

# Precision T1700 Tower Claims

- The Dell Precision T1700 delivers up to 59% higher graphics performance than the OptiPlex 9020 on SolidWorks, 49% on CATIA, 12% on Creo, 50% on Maya, and 861% on Siemens NX
- The Dell Precision T1700 delivers up to a 30% increase in productivity over the OptiPlex 9020 with AutoCAD
- The Dell Precision T1700 delivers up to a 52% better graphics performance than the OptiPlex 9020 with 3D models in AutoCAD
- The Dell Precision T1700 delivers up to a 4% higher CPU performance than the OptiPlex 9020 with AutoCAD



# Precision Tower 5810

## Claims

- “Dell Precision Tower 5810 delivers up to 2.5x better performance than previous generations for analysis, simulation, and rendering”
  - “\*As measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Floating Point (FP) Base (Speed) results between a Tower 5810 system with a Xeon E5-1680 v3 CPU and a T3500 system with a Xeon W3680 CPU.”
- Dell Precision Tower 5810 provides up to 21% higher CPU performance than previous generations\*
  - \*As measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Integer Base (Speed) results between a Tower 5810 system with a Xeon E5-1680 v3 CPU and a T3500 system with a Xeon W3680 CPU.
- “Dell Precision Tower 5810 delivers up to 75% better performance than previous generations”
  - \*Dell Precision Tower delivers 75% higher single-threaded floating point performance as measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Floating Point (FP) Base (Speed) results between a Tower 5810 system with a Xeon E5-1680 v3 CPU and a T3500 system with a Xeon W3680 CPU.
- “Dell Precision Tower 5810 delivers up to 2.5x better performance than previous generations.”
  - \*Dell Precision Tower delivers 75% higher single-threaded floating point performance as measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Floating Point (FP) Base (Speed) results between a Tower 5810 system with a Xeon E5-1680 v3 CPU and a T3500 system with a Xeon W3680 CPU.

# Precision Tower 7910

## Claims

- Dell Precision Tower 7910 provides up to 20% higher CPU performance than previous generations\*
- "\*As measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Integer Base (Speed) results between a Tower 7910 system with two Xeon E5-2699 v3 CPUs and a T7500 system with two Xeon W5580 CPUs."
- Dell Precision Tower 7910 performs up to 27% faster than previous generations
- \*Higher multi-threaded floating point performance as measured using SPEC CPU 2006 v1.2 running on Windows 7 64-bit Professional SP1, comparing Floating Point Rate Base results between a Tower 7910 system with dual Xeon E5-2699 v3 CPUs and 256GB (16x16GB DDR4) memory, and a T7500 system with dual Xeon W5580 CPUs and 24GB (6 x 4GB DDR3) memory.
- Dell Precision Tower 7910 performs up to 4.5x faster than previous generations.
- The Tower 7910 is up to 49% quieter under heavy workloads compared to the previous generation