





## THE LENOVO® THINKPAD® W520 NOTEBOOK

POWER AND RELIABILITY OF A WORKSTATION, QUALITY OF A THINKPAD

As one of the fastest and lightest mobile workstations in the industry, the 15" ThinkPad W520 offers users extraordinary performance starting with second generation Intel<sup>®</sup> Core<sup>™</sup> i5 and Core<sup>™</sup> i7 processors and up to the Core<sup>™</sup> i7 quad core<sup>™</sup> extreme processors. This is accompanied by phenomenal graphics powered by the NVIDIA<sup>®</sup> Fermi architecture based Quadro<sup>®</sup> graphics cards, with an amazing 2GB of dedicated graphics memory, up to 32GB DDR3 RAM and a choice of HD, HD+ or FHD panels.

Certified by multiple ISVs, the ThinkPad W520 provides the reliability, performance and features required by power users to handle specialized and graphically intensive applications with ease. Lenovo Enhanced Experience 2.0 for Windows<sup>®</sup> 7 further enhances the usability and performance with industry's best boot up times. This processing

#### **TOP REASONS TO OWN**

- High performance with Intel<sup>®</sup> Core<sup>™</sup> i7 Quad Core<sup>™</sup> Extreme Processors
- ISV Certifications including DSS CATIA, SolidWorks, Autodesk Inventor, AutoCAD, Adobe $^{\otimes}$  and Maya
- Extreme graphics with NIVIDIA<sup>®</sup> Quadro<sup>®</sup> 1000M / NIVIDIA<sup>®</sup> Quadro<sup>®</sup> 2000M with Optimus<sup>™</sup> technology
- · Optional Integrated Color Calibrator, an Industry first
- Milspec tested for ruggedness

power is complemented by the W520's innovative features such as the optional Integrated Color Calibrator, the Lenovo Instant Resume mode, Turbo boost and HD low light sensitive web camera. The battery life of the ThinkPad W520 is further enhanced by the NVIDIA<sup>®</sup> Optimus<sup>™</sup> technology, which automatically balances power usage and visual performance. As an added benefit, users of the ThinkPad W520 running Genuine Windows<sup>®</sup> 7 and NVIDIA<sup>®</sup> Optimus<sup>™</sup> technology will be able to run up to two external displays in addition to the W520's main display for a total of three displays.

The ThinkPad W520 redefines the standards of notebook performance with unprecedented computing power. Whether you need ISV certified reliability, extreme performance and response times, true colors or simply an amazing combination of performance and battery life in a mobile workstation, the ThinkPad W520 has been engineered to meet your need.

# LENOVO ENHANCED EXPERIENCE 2.0 FOR WINDOWS<sup>®</sup> 7. FASTER AND OPTIMIZED FOR BUSINESS.

Lenovo Enhanced Experience 2.0 for Windows® 7 uses RapidBoot technology to start your PC on average 20 seconds faster than a typical Windows® 7 computer\*. And with superior web conferencing and robust security features, you'll benefit from increased productivity at the office. Find out more at www.lenovo.com/win7ee

\*Compares averaged data from Lenovo EE 2.0 PCs with averaged data from 42 competitor products of similar configuration. Testing conducted by CNET Labs, Beijing in November 2010, using the independent Microsoft VTS tool to measure start-up, shutdown, resume and other Windows® 7 performance measurements. Data from competitor and Lenovo PCs were averaged and compared to calculate the claims used. Performance will vary by model and configuration.









#### WORKSTATION-CLASS PERFORMANCE

The ThinkPad<sup>®</sup> W520 is the fastest 15" Thinkpad ever, showcasing workstation-class performance through:

- Extraordinary computing power with Intel<sup>®</sup> Core<sup>™</sup> i7 extreme processors
- Fastest Windows® 7 boot with Lenovo Enhanced Experience 2.0 and Lenovo Rapid Drive
- NVIDIA<sup>®</sup> Fermi architecture based Quadro<sup>®</sup> 1000M or Quadro<sup>®</sup> 2000M with 2GB VRAM
- An ISV Certified Notebook
- Faster wireless transfer with improved WWAN antenna performance
- 10x faster data transfer through SuperSpeed USB 3.0<sup>2</sup>
- Meets Military Specification for use in extreme conditions

#### **OUTSTANDING VOIP EXPERIENCE**

The ThinkPad W520 notebooks are optimized for communication through VOIP, with a rich, enhanced experience from features such as:

- Full duplex voice transmission support on Internet phone calls
- New conference call microphone mode
- Private Internet call mode with noise cancelling dual array microphones
- Talk and type keyboard noise reduction technology

#### **THINKPLUS® SUPPORT**

Lenovo's award winning Warranty Service and Support optimize productivity and end-user satisfaction by helping you concentrate more on your business objectives.

- ThinkPlus Priority Onsite Warranty\* Saves time, reduces costs and maximizes productivity, by providing you with faster, 24x7, direct access to advanced-level skilled technicians for hardware and software issues.
- ThinkPlus Warranty Onsite NBD Upgrades Maximizes PC uptime and productivity by providing convenient and fast repair services at your place of business.
- Warranty Extensions (1 year to 3 years) Helps accurately budget for PC expense, protects your investment and lowers the overall TCO with a fixed-term, fixed-cost service solution.

#### FASTER, SMARTER PROCESSING TECHNOLOGY

From rendering highly complex graphics to running computationally intensive applications, the ThinkPad W520 with Intel's second generation Core™ processors is the best choice for you to be as productive as possible:

- Up to 20% CPU performance gains, allowing you to work faster and achieve more in shorter timeframes
- Intel® Hyper-Threading technology, for more open windows®, more running applications and more efficient multitasking
- Get the best CAD and DCC performance with the new NVIDIA<sup>®</sup> Quadro<sup>®</sup> 1000M or 2000M with 2GB VRAM GPUs

#### THE RIGHT TOOLS FOR POWER USERS

The ThinkPad W520 is designed for professionals who need superior processing power and a host of features to meet their business needs. The ThinkPad W520 includes:

- Optional RAID 0, 1 Hard Drives for greater storage capacity or critical data backup
- USB 3.0 ports for 10x faster data transfer and 50% more power for connected devices
- NVIDIA<sup>®</sup> Optimus<sup>™</sup> technology for greatly improved battery life and mobility
- Optional Built-in color calibrator for accurate color and color workflow

#### THINKPLUS PROTECTION

Lenovo's Protection Services help you avoid unbudgeted repair costs, secure your data, save money and achieve peace of mind.

- ThinkPad<sup>®</sup> Protection (TPP) Provides coverage for unexpected damage, unintentional drops and minor spills, thereby helping you eliminate unplanned repair costs.
- Hard Disk Drive Retention Allows you to retain the hard drive, should it happen to fail, thus helping you protect your valuable data.





### The Lenovo® ThinkPad® W520 Notebook Specifications

DESCRIPTION	W520	
Chipset/CPU	Intel® Core™ i7-2920XM (2.50GHz, 8MB L3, 1600MHz FSB, 55W)   Intel® Core™ i7-2820QM (2.30GHz, 8MB L3, 1600MHz FSB, 45W)   Intel® Core™ i7-2720QM (2.20GHz, 6MB L3, 1600MHz FSB, 45W)   Intel® Core™ i7-2630QM (2.00GHz, 6MB L3, 1333MHz FSB) <sup>3</sup>	
Preloaded OS (Operating System)	Genuine Windows® 7 Home Basic 32-bit Genuine Windows® 7 Home Premium 32-bit Genuine Windows® 7 Home Premium 64-bit	Genuine Windows® 7 Professional 32-bit Genuine Windows® 7 Professional 32-bit
Display	HD, HD+, FHD 15.6 inch, 16:9, LED	
Memory	Up to 32GB DDR3 (4 slots)	
Weight	5.95lbs (2.7kg) starting weight with optical drive	
Form Factor	14.68in x 9.65in x 1.26in → 1.41in 372.8mm x 245.1mm x 31.8 → 35.6mm	
I/O (Input/Output) Ports	2 USB 3.0 ports 1 USB/eSATA 1 Powered USB	
Optical Drive	Multiburner combo drive	
Multimedia	Dual digital microphone	
Graphics GPU	NVIDIA® QUADRO® 1000M 2GB VRAM with 96 CUDA CORES	NVIDIA® QUADRO® 2000M 2GB VRAM with 192 CUDA CORES
Slots	34mm ExpressCard and MMC	Smart Card Reader (optional)
Internal PCIe Slots	1 full, 2 half	
WiMAX/Wifi	Intel® Centrino® Advanced-N + WiMAX 6250 (Kilmer Peak) 2x2 AGN	
WLAN	Intel® Centrino® Ultimate-N 6300 (Puma Peak) 3x3 AGN (performance) Intel® Centrino® Advanced-N 6205 (Taylor Peak) 2x2 AGN (performance)	
WWAN	Gobi™ 3000 Sierra Wireless EV-DO/HSPA WWAN Minicard Ericsson HSPA + WWAN Minicard (F5521gw)	LeadCore TD-SCDMA WWAN Minicard (LC5730D) Huawei EV-DO WWAN Minicard (EM660)
HDD	160GB (7200RPM SATA) <sup>1</sup> 250GB (5400RPM SATA) 250GB HDD 7200 RPM FDE <sup>1</sup>	320GB (5400/7200RPM SATA) 500GB (7200RPM SATA)
SSD	80GB Intel® Micro SSD 128GB SSD	160GB SSD
Webcam	720p HD	
Battery Life⁵	Up to 10.7 Hours with 9 Cell Battery,Dual Core i5-2520M, 128GB SSD Drive, Quadro 1000M Graphics Up to 8.9 Hours with 9 Cell Battery, Quad Core i7-2820QM 500GB 7200RPM Drive, Quadro 2000M Graphics	
Warranty	Parts coverage (1 year, 2 year, 3 year models available), 1 year battery	

<sup>1</sup> Special Bid only

2 80GB mSATA SSD is in addition to other Hard Drives and fits in the WWAN slot. As a result, it is not available with WWAN



<sup>3</sup> Availability of components may differ in select markets 4 Please check with your local sales representative for availability in your country 5 All Battery Life Data Based On Mobile Mark 2007 Benchmark



#### The Lenovo<sup>®</sup> ThinkPad<sup>®</sup> W520 Software

#### **READY TO INSTALL**

- ThinkVantage<sup>®</sup> Rescue & Recovery<sup>®</sup> 4.3
- ThinkVantage Password Manager 4.0
- ThinkVantage Access Connections<sup>™</sup>
- ThinkVantage SimpleTap 2.0
- Microsoft® Office Starter 2010
- Norton<sup>®</sup> Internet<sup>®</sup> Security (30-day trial)
- Skype<sup>™</sup> Application 4.2

#### **PRE-LOADED APPLICATIONS**

- ThinkVantage Product Recovery 9.0
- ThinkVantage Toolbox v1.4
- ThinkVantage Tools v2.0
- ThinkVantage Utilities 1.0
- ThinkVantage System Update 4.0
- Microsoft<sup>®</sup> Live Essentials
- Corel DVD Movie Factory
- Corel Burn Now
- Intervideo WinDVD

#### **ISV CERTIFICATIONS:**

Autodesk®	Inventor
Autodesk®	AutoCad
Dassault	V5 R19
Dassault	Solid works
PTC	Pro/E Wildfire 4.0
PTC	CoCreate Modeling
Siemens	NX5
Siemens	SolidEdge
Siemens	IDEAS 5
Autodesk®	Мауа
Autodesk®	3dS Max
Autodesk®	Alias Studio
Softimage	XSI
Adobe®	Production Premium
Adobe®	After Effects
ESRI	ArcGIS

#### **Notebook Options**



ThinkPad Business Topload (43R2476) ThinkPad Business Backpack (43R2482)



0A36227 - ThinkPad 170w AC Adapter



Kensington MicroSaver Cable Lock from Lenovo (73P2582)



ThinkPad Battery 55+ 6-cell (57Y4185) ThinkPad Battery 55++ 8-cell (57Y4186) ThinkPad Battery 27++ 9-cell slice (57Y4545)



1GB PC3-10600 (55Y3709) 2GB PC3-10600 (55Y3710) 4GB PC3-10600 (55Y3711)



ThinkPad Bluetooth<sup>®</sup> Laser Mouse (41U5008)



ThinkPad Mini Dock Plus Series 3 (170W) (4338-30U)



ThinkPad In-Ear Headphones (57Y4488)



ThinkPad Mini Dock Plus Series 3 (4338)



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