

## Dell Latitude D620 Review (pics, specs)

by abaxter - 3/29/2006

The **Dell Latitude D620** is a **14-inch widescreen business notebook** equipped with the latest Intel Core Duo processor. The D620 replaces the D610 and provides quite an overhaul in both design change and internal components. The new industrial charcoal grey and black look of the D620 conveys its strong build, which [Dell](#) calls "Road Ready", and with a slew of available built-in [wireless communications](#) this notebook is road ready in more ways than one.



Dell Latitude D620 ([view large image](#))

### Quick Specs of D620 as Reviewed:

- Intel Core Duo T2400 1.83GHz
- 1GB 533MHz DDR2 RAM (2 x 512MB config)
- 80GB 5400RPM HD
- 14.1-inch WXGA screen
- Integrated graphics (Intel Media Accelerator 950)
- 24X CDRW / DVD Combo
- Windows XP Pro
- Dell Wireless 1490 802.11 a/g and built-in Bluetooth

### Detailed Specs and Configuration Choices for the Latitude D620

- Processor: Intel Core Solo & Duo processors 667MHz Front Side Bus & (2M L2 Cache)
- Audio: High Definition Audio codec 2.0W (4 ohms), integrated omni-directional microphone
- Wireless LAN Intel Pro/Wireless 3945 WiFi 802.11 a/b/g, Dell Wireless 1390 802.11g, Dell Wireless 1490 802.11a/g
- Wireless WAN (cellular broadband) choices:
  - o Dell Wireless 5505 Mobile Broadband 3G HSDPA (Vodafone UK, France, Germany)

- o Dell Wireless 5500 Mobile Broadband 3G HSDPA ( Cingular US)
- o Dell Wireless 5700 Mobile Broadband CDMA EVDO ( Verizon WirelessUS)
- Security Hardware: Integrated Smart Card reader, TPM 1.2 Security chip, Optional UPEK fingerprint reader
- Dell Wireless350 Bluetooth internal wireless card (optional)
- Docking and Port Replicators: D/Port, D/Dock, D/View Notebook Stand, D/Monitor Stand
- Chipset: Choice of Intel 945GM or Intel 945chipset PM chipset
- Memory: Supports 256 MB to 4056 MB of 667-533MHz DDR2 SDRAM shared
- Displays: 14.1"WXGA (1280 x 800 resolution) 14.1"WXGA+ (1440 X 900 resolution)
- Graphics Chip: Choice of Intel Graphics Media Accelerator 950 (Up to 224MB shared) or 256 MB NVIDIA Quadro NVS 110M with TurboCache
- Hard Disk Drive: 40, 60, 80 & 100GB primary; 80 GB secondary
- Modular Media Bay: 24X CD-ROM, 8X DVD-ROM, 24X CDRW/DVD, 8X DVD+/-RW, Floppy Disk Drive, Secondary 6-cell/56 WHr "Smart"Li-Polymer battery, 2nd80GB hard drive, or TravelLite module
- Modem: Internal 56K V.92 modem
- Networking: Internal 10/100/1000 network interface adaptor
- Ports: Serial, docking connector, 4 USB, VGA, 1 PC card slot type I/II,headphone/speaker out, infrared port, RJ-11, RJ-45, AC power
- Battery
  - o Primary 4-cell/35 WHr "Smart"Li-Ion battery featuring ExpressCharge
  - o Primary 6-cell/56 WHr "Smart"Li-Ion battery featuring ExpressCharge
  - o Primary 9-cell/85 WHr "Smart"Li-Ion battery
  - o Secondary 6-cell/56 WHr "Smart"Li-Polymer battery featuring ExpressCharge
- Operating Systems: Microsoft Windows XP Professional SP2, Microsoft Windows XP Home SP2
- Dimensions HxWxD (32mm/1.26"x 337/13.27"x 238mm/9.37")
- Weight: Starting at 5.00lbs/2.27kg with 6-cell battery and CD-ROM (depends on configuration and manufacturing variability) --preliminary weight
- Service & Support: 3-year Limited Warranty\* with Next Business Day On-Site Service

## Design and Build

The D620 is most interesting in that it adopts a widescreen format, a feature that hereto date really has been pushed more in the consumer channel of notebooks. Dell reckons that business-types will prefer this format too though. After all, a widescreen (available in WXGA and WXGA+ resolution) does allow you to more easily have two windows open next to each other at the same time. Side-by-side comparison of documents, web pages or spreadsheets is an example of common business tasks more easily done on a widescreen.



*D620 above view with lid closed, mouse aside the D620 for size comparison ([view large image](#))*

Aesthetically the D620 looks nice and professional. It is mostly a dark charcoal-grey (almost black) inside with silver accents and silver lid. This provides for an industrial and muscular look, quite the opposite of the light-grey and white design of the Dell Inspiron line of notebooks. All of the new Latitude notebooks (D420, D620 and D820) carry this new color scheme, in my opinion it is distinctive and professional looking -- it's not exactly elegant and sleek like an Apple or Sony, the Latitude favors deep and noticeable grooves as opposed to an Apple smooth all over look, but the look works. And it's certainly an improvement over the former D610 look which was business boring and all too typical with its grey and boxy appearance.

The industrial looking aesthetics are true to the actual build of the notebook. The D620 is very sturdy; it uses an all magnesium-alloy case. This results in strong overall physical protection of the notebook, worry-free of case cracks appearing or problems with excessive flexing. The hinges are constructed of steel, Dell claims they have been tested for up to 20,000 cycles (openings and closings) to assure freedom from loosening and wobble. The D620 hinges also have a new barrel design to withstand vibration better than past Latitude notebooks. Another moving part on the D620 is the screen latch, this is also constructed of metal to provide durability and a nice look to boot.

The most important thing to protect in a notebook is in most cases the hard drive (where all of your data is stored), data is irreplaceable and sometimes invaluable, while hardware not quite so. As such Dell has implemented StrikeZone technology that reduces the amount of shock experienced in the hard drive area during a drop situation. You can also get Shock Resistant hard drives in 60GB and 80GB capacities that offer further physical protection to data.

The D620 weighs about 5.6lbs with a 6-cell battery, optical drive installed and the power cord and adapter. Given the fact this notebook is a magnesium-alloy casing and not too much plastic is used, the weight is pretty impressive. It's not the lightest thin-and-light by any stretch, and it is thicker than the ThinkPad T-series of notebooks for example, but it's still fairly comfortable to carry around in say a backpack without feeling the weight too much.



*Pictured is the Dell D620 on the right next to a 14.1" screen ThinkPad T43, notice the lower profile of the D620 but wider body ([view large image](#))*



You can see the D620 is slightly thicker than the competing thin-and-light ThinkPad T43, especially at the front where the T43 tapers to being thinner ([view large image](#))

### Processor and Performance

I've had the opportunity to use several Core Duo based notebooks at this point, and I continue to be impressed with performance. In case you're not familiar, the Core Duo is Intel's latest mobile processor that features two cores (part of the processor responsible for processing instructions) to enable faster overall performance and be especially adept at providing good performance when multi-tasking with programs. In the D620 being reviewed we have the Intel T2400 1.83GHz Core Duo processor. For business uses this is certainly more than ample clock speed.

In terms of RAM, you can configure as much as 4.00GB of RAM in the D620, I can't really imagine why you'd need that much -- unless maybe you decide to turn your laptop into an enterprise level database server. The D620 supports RAM with bus speeds of up to 667MHz with the new Intel 945 chipset being used, this is an improvement over the 533MHz bus speed supported in the Dell D610.

The hard drive technology used is SATA and you can configure up to a 100GB storage size hard drive. Hard drives with up to 7200RPM configurations are also available for those that want the increased performance you'll get from a faster spinning hard drive.

One very noticeable thing that made for better performance out of the box with the D620 was the very clean Windows install this machine has. Unlike many consumer notebooks where you have a bunch of junk software installed such as AOL, Earthlink and trial versions of every software application under the sun, the Latitude D620 contains the bare basics and very little software outside of Dell security application and a few management tools. This is great, it means far fewer unnecessary background processes running from what is essentially junkware and therefore much improved performance and boot times. In fact, one of the major advantages of purchasing a business notebook is that the manufacturer will refrain from installing too much 3rd party software.

### Benchmarks

Enough of the talk, the proof is in the pudding in terms of performance so here's a look at some of the numbers the D620 accomplishes in some benchmark programs:

Notebook	Time to Calculate Pi to 2 Million Digits
<b>Dell Latitude D620 (Intel Core Duo T2400 1.83GHz)</b>	<b>1m 21s</b>
Dell Latitude D610 (Intel Pentium M 750 1.83GHz)	1m 41s

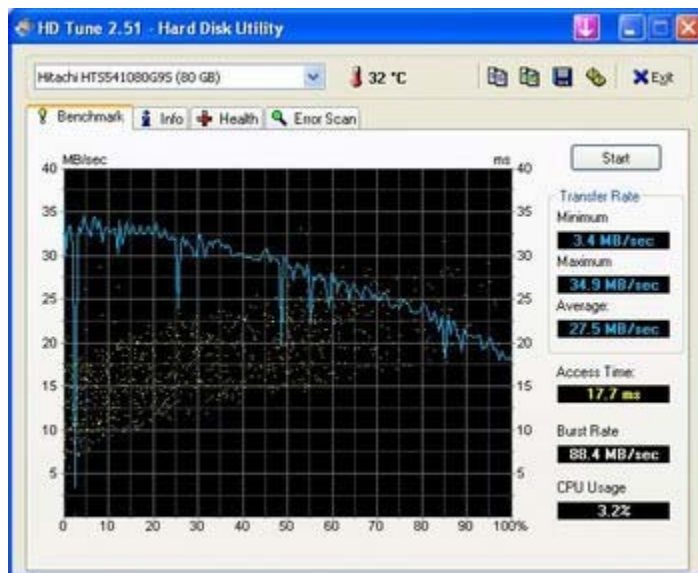
Dell Inspiron e1505 (2.0GHz Core Duo)	1m 16s
Fujitsu LifeBook N3510 (1.73 GHz Alviso Pentium M)	1m 48s
Dell Inspiron 6000D (1.6 GHz Alviso Pentium M)	1m 52s
Lenovo ThinkPad T60 (2.0GHz Core Duo)	1m 18s
Sony VAIO S360 (1.7 GHz Dothan Pentium M)	1m 57s
Gateway 7510GX (AMD Mobile Athlon 64 3700+ Processor, 2.4 GHz)	1m 31s
Sony VAIO S380 (1.83 GHz Alviso Pentium M)	1m 42s

The D620 is certainly faster processor wise than its D610 predecessor for the equivalent clock cycle processors (1.86GHz)

Below are the results gained from running PCMark04 on the Latitude D620, it is compared to a competing thin-and-light ThinkPad T60 notebook with a 2.00GHz ATI Radeon X1400 configuration - the ThinkPad T60 is more expensive than the D620 given its higher configuration. Results are very close except for the graphics tests where the T60 wins due to having a dedicated graphics solution:

<b>Futuremark PCMark04 Scores</b>		
	<b>Dell Latitude D620 (1.83GHz, Intel Integrated Graphics)</b>	Lenovo ThinkPad T60 (2.00 GHz, ATI X1400 Graphics)
Multithreaded Test 1 / File Compression	6.26 MB/s	6.83 MB/s
Multithreaded Test 1 / File Encryption	52.67 MB/s	55.83 MB/s
Multithreaded Test 2 / File Decompression	47.83 MB/s	52.5 MB/s
Multithreaded Test 2 / Image Processing	21.02 MPixels/s	23.24 MPixels/s
Multithreaded Test 3 / Virus Scanning	4640.01 MB/s	4450.72 MB/s
Multithreaded Test 3 / Grammar Check	4.62 KB/s	4.88 KB/s
File Decryption	54.75 MB/s	59.64 MB/s
Audio Conversion	2808.41 KB/s	3062.34 KB/s
Web Page Rendering	5.74 Pages/s	6.35 Pages/s
DivX Video Compression	69.92 FPS	74.82 FPS
Physics Calculation and 3D	100.65 FPS	212.51 FPS
Graphics Memory - 64 Lines	501.23 FPS	1514.98 FPS

Below is a graph generated from running HDTune on the D620, a hard drive benchmarking application:



([view large image](#))

Follow this link to an [Everest Report of the system details of the D620](#).

## Keyboard and Touchpad

One of the most important parts of a notebook is of course the ease of input, aka how easy it is to type and move the cursor around the screen. The D620 keyboard is full size, it is nice and firm with no flex and overall a pleasure to use. As with typical Dell keyboards, the key touch is lighter than say a ThinkPad -- meaning you don't have to push a key quite as hard to register a keystroke, but it's a bit more easy to accidentally brush a key and register a keystroke. Depending on your typing style you may or may not like this, very fast light touch typers tend to like Dell keyboards though.



Keyboard view of the D620 ([view large image](#))

My favorite part about the D620 is that it has dual navigation via a touchpad or pointing stick

input. I find the pointing stick to be faster and easier to use than the touchpad, but if you prefer a touchpad then it's there and is a very generous size for easy use. The dual mouse buttons have a nice feel and positioned so that if you use the pointing stick you would use the uppermost buttons and if you use the touchpad you would use the lowermost buttons.



Close in view of volume and power button ([view large image](#))

Notice that between the lower mouse button the fingerprint reader is installed for biometric security login.

## Ports

The D620 has a good selection of ports. Here's a run down of what you get on each side:



Left side view of ports on the D620: Kensington lock, headphone jack, microphone jack, IrDA, Smart Card, Wi-Fi Catcher, PCMCIA slot ([view large image](#))



Back side view of ports on the D620: Ethernet LAN and Modem, 2 USB 2.0 ports, Serial port, VGA out port, Power port, Fan and Vents ([view large image](#))



Right side view of ports on the D620: Optical drive media bay (removable and swappable), 2 USB 2.0 ports ([view large image](#))



Those three slits you see near the middle are the mono speaker, battery is to the right ([view large image](#))



Underside view of the D620: Expansion slot (at the back), battery (at the front), memory slot in the middle ([view large image](#))

I would like to have seen an separate Express Card/54 slot and a media card reader -- or SD card reader at least. The Smart Card reader and Serial connector are obviously not going to appeal to consumers, but could be valuable to some businesses that utilize such ports. It would have been nice to have either an S-Video or DVI-D port as well, although given this is a business notebook it's forgivable for not being there.

## Screen



Dell D620 screen ([view large image](#))

The D620 is offered with a WXGA (1280 x 800) or WXGA+ (1440 x 900) display. The WXGA+ will give you about 26% more screen real estate. As mentioned before, Dell is adopting the widescreen format with the thinking that it allows business users to more easily display side-by-side document windows. The widescreen format also offers a lower overall profile, this is good for in tight spaces such as a plane, and actually means the notebooks footprint is about 2% less overall.

The D620 has a built-in ambient light sensor built-in that will control the screen brightness when

on battery. For example, in a dark room the screen will dim as less brightness is needed to see the screen, but in bright light the screen will crank up in brightness so it is easier to see. When on power the screen will automatically become brighter. You can override the ambient light sensor to control brightness yourself of course.

As far as screen quality, the brightness is decent, but certainly not the best on the market and nowhere near as vivid as some of the high-end screens for consumer notebooks. It is a matte screen so you won't get any reflection from office lighting. There is some backlight leakage from the bottom and the overall picture is slightly washed out. Below are some pictures of the screen in the dark, notice the light leakage from the bottom on the all black Windows XP screensaver background.



The D620 screen does experience some light leakage at the bottom ([view large image](#))

## Wireless Communications

Dell has pulled out all of the stops in making the D620 wireless capable. Here's a quick rundown of the wireless options:

- Wi-Fi Choices: Intel Pro/Wireless 3945 WiFi 802.11 a/b/g, Dell Wireless 1390 802.11g, Dell Wireless 1490 802.11a/g
- IrDA
- Bluetooth (Dell Wireless350 BlueTooth internal wireless card)
- WWAN (Cellular Broadband internet access) Choices:
  - o Dell Wireless 5505 Mobile Broadband 3G HSDPA (Vodafone UK, France, Germany)
  - o Dell Wireless 5500 Mobile Broadband 3G HSDPA ( Cingular US)
  - o Dell Wireless 5700 Mobile Broadband CDMA EVDO ( Verizon WirelessUS)

Wi-Fi, Bluetooth and IrDA are all things we've seen in the past with the D610 of course, the broadband cellular communication addition to the D620 is new and much welcomed. Dell provides the option of configuring your D620 with an internal antenna for either EVDO or HSDPA, depending on the region you live in and cellular provider you have. My review unit D620 came configured with the Dell Wireless 5700 EVDO modem. I love the fact that there's no ugly side antenna or extra humps on the notebook where the antenna sticks out as just about every other WWAN equipped notebook uses (such as the ThinkPad T60 or Sony VAIO TX). Rather, Dell puts the antenna in the screen and the D620 looks the same whether do or don't have the WWAN option.

EVDO via Verizon is a real treat, if you have an existing Verizon wireless account it's \$60 a month

for unlimited data transfer and if you don't then the cost is \$80 a month. You also have the option of paying \$15 for 24 hour access to the Verizon EVDO network. If you're a highly [mobile worker](#) EVDO can be a real blessing and keep you from fretting about where you'll find the next hotspot to send/receive email or [connect](#) to your corporate intranet from the field. As we know, when you don't need a wi-fi hotspot they're all around, but when you need a hotspot to access the net and help land a critical business deal the trail goes cold.

Speaking of finding wireless hotspots, Dell has included a unique feature called "Wi-Fi Catcher" located on the left side of the notebook. You can use this switch to turn off all wireless radios by putting it in the Off position, but far cooler than that, push it all the way forward and it will blink green as it searches for a Wi-Fi network and if one is present it glows solid green, if none is found it shows orange. This Wi-Fi Catcher works whether the notebook is on, off or in standby mode. So there's no need to boot up and search for wireless networks, just push this button to find out.



*The Wi-Fi Catcher allows you to push all the way to the left to turn off all wireless radios, or push all the way to the right and it will search for wireless networks and illuminate green if any are found -- this works whether the notebook is off or on! ([view large image](#))*

## Speakers and Headphones

The D620 is not a consumer multimedia notebook, and as such the speaker is there to basically play system sounds properly, but when it comes to playing music and DVDs you'd better plug-in the headphones. The D620 is mono-sound, as in there's only one small speaker on the front side (see front side picture above), so you'll have to get external speakers if you want stereo sound and some bass.

The good news is that the much complained about headphone hissing noise experienced with the D610 seems to be gone with the D620. I listened to music CDs while working on the D620 and experienced no odd background noises that distorted the music, it was a clean listening experience.

## Heat and Noise

The D620 has been whisper quiet in my usage and it does a great job of staying cool. The main vent is on the back area and another vent is located on the left side. I imagine with the nVidia graphics card option this notebook may get a bit warmer, but with the configuration I have that uses Intel integrated graphics this is not the case. Cool and quiet running is the word here.

## Security

Being a business notebook Dell has pulled out all the stops to make the D620 secure and provide as many options as possible to the end user for ways to keep their data secure. Laptops are highly popular targets for theft; they're indeed the weakest link in any enterprises [IT security](#) solution, because in the end it's up to the end user to be smart about keeping an eye on their laptop and keeping it locked properly. Here's a list of some of the security features the D620 comes with:

### User Authentication

- BIOS passwords & Port Disablement

- Integrated Smart Card reader -Smart Cards provide strong user authentication using the "2 factor authentication", something I have (Smart Card) with something I know (password).
- Smart Cards can be used in conjunction with a PKI environment via Windows XP & Vista.
- UPEK Finger Print reader: An optional Biometric reader can be added to the D620 palm rest, providing an additional third factor authentication (something I am) to passwords & Smart Cards.
- Pre boot Authentication: Enables user authentication prior to OS log in with Smart Card or fingerprint reader

### System Authentication

- System Primary Password: User password needed to boot system
- Administrator Password:Administrators or service technicians access to computers for service or repair.
- Hard Disk Drive Password: Data cannot be accessed without the original hard disk drive password.
- TPM 1.2: Integrated on the D620 motherboard Trusted Platform Module can be used to store and generate "on board"encryption keys.

### Confidential Data Encryption

- Microsoft Windows OS File & Folder Encryption
- Wave EMBASSY Trust Suite by Wave Systems
- Optional Credant Technologies Mobile Guardian

### Battery



*The battery has a built-in charge indicator on the D620 ([view large image](#))*

The D620 can be configured with a 4-cell, 6-cell or 9-cell battery. The battery location is rather odd relative to other notebooks in that it is at the front and not the back of the laptop. If you get an extended life 9-cell battery it will stick out of the front a bit and create a sort of lip that extends 0.9". I have the 6-cell type battery and it does not stick out at all. With wi-fi on and screen at mid-brightness and doing tasks such as web browsing and emailing I got 2h 36m of battery life. That's decent, but not great. There are certainly thin-and-lights with better and I prefer to see 3 hours or a little more for a thin-and-light travel notebook. If you were to upgrade to the 9-cell you would certainly exceed 3 hours, but at the cost of extra weight and increased notebook size.



The 9 cell battery extends 0.9" inch from the front of the D620

*The 9-cell extended life battery sticks out a bit at the front of the D620 ([view large image](#))*

One thing I really like about this Dell battery is the Express Charge feature. The Express Charge means that you can quickly charge to 80% capacity in about 40-minutes or 100% capacity in about an hour of charging (those numbers are stated assuming the notebook is off). If you have a layover at an airport or limited time to plug-in a notebook before you have to be pulled away from a wall outlet again, this can be a life-saver. At other times it's just really convenient.

The D620 also has a nice 5 light LED display to show you how much battery charge is left without having to boot the notebook. Push the battery icon on the battery and it will light up with each light representing 20% charge.

## Conclusion

The Latitude D620 is a very welcome upgrade to the D610 offering many improvements, especially in terms of performance and security, and the look and [build quality](#) are also much improved. The widescreen approach is interesting for a business notebook, I think it makes sense and probably will be well received. It's very apparent that Dell is excited about this new line of Latitudes (D620, D420 and D820) and have gone out of their way in regards to testing the notebook and getting feedback from customers on what they want. So thumbs up on the D620, if you're a business worker or just someone that wants a notebook for productivity purposes and don't need a bunch of bells and whistles media features, the D620 is a very well built and good option for you.

## Pros

- Very good overall performance, snappy with the Core Duo and availability for large amount of RAM (up to 4GB) and a very clean Windows install without a ton of unwanted software means better performance
- Nice new industrial look
- Excellent build and construction via the all over mag-alloy case
- Widescreen format offers greater viewing area, easier to view side-by-side documents especially with WXGA+ format
- Great security via Smart Card, biometrics and security software suite
- Super connectivity, especially with option for EVDO or HSPDA cellular broadband built-in

## Cons

- Would have been nice to have a seperate Express Card 54 slot for future proofing
- Multimedia card reader or SD card reader would have been nice to have
- No S-Video or DVI-D ports, but not exactly expected for a business notebook
- Screen is slightly washed out and slight amount of backlight leakage at the bottom
- Battery life with 6-cell battery is under 3 hours with wi-fi on and medium screen brightness, would have been nice to see it over 3 hours

### Pricing and Availability

The [Dell Latitude D620 is now available from Dell.com](#) for a starting price of \$899 after mail-in rebate.

### Glamour Shots of the Latitude D620

The Latitude D620 was announced yesterday at a reception in New York, as such here's a few pictures of the D620 hanging about somewhere in the skyline of NYC. Only with a laptop are you enabled to work from the beach -- or if you like, building rooftops...



[\(view large image\)](#)



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