

## Lenovo ThinkPad T410 Review

The ThinkPad T410 is the latest revision of the popular T-series ThinkPad from Lenovo. This model brings a new line of dedicated and integrated graphics cards, the Intel Core-series processor line, and a completely redesigned chassis. We took an in-depth look at the highly anticipated T410 to see how well it stacks up against all the prior T-series ThinkPads. Does it live up to our expectations? Read on to find out.

### Our Lenovo ThinkPad T410 with NVIDIA Graphics Specifications:

- Screen: 14.1-inch WXGA+ (1440 x 900) LED Backlit (Matte finish)
- Operating System: Windows 7 Professional (64bit)
- Processor: Intel Core i5-540M (2.53GHz, 3MB Cache)
- Memory: 4GB DDR3 RAM (2GB + 2GB)
- Storage: 320GB Seagate 7400.4 HDD (7200rpm)
- Optical Drive: DVD+/-RW
- Wireless: Intel 6200 802.11AGN, Bluetooth, Gobi 2000 WWAN
- Graphics: NVIDIA NVS 3100M with 256MB DDR3
- Power: 94Wh 9-cell, 90W 20V AC adapter
- Dimensions: 13.13 x 9.41 x 1.09-1.26?
- Weight: 5lbs 9.3oz
- Retail Price: \$1,940

### Our Lenovo ThinkPad T410 with Intel Graphics Specifications:

- Screen: 14.1-inch WXGA (1280 x 800) LED Backlit (Matte finish)
- Operating System: Windows 7 Professional (64bit)
- Processor: Intel Core i5-540M (2.53GHz, 3MB Cache)
- Memory: 4GB DDR3 RAM (2GB + 2GB)
- Storage: 320GB Seagate 7400.4 HDD (7200rpm)
- Optical Drive: DVD+/-RW
- Wireless: Intel 6250 802.11AGN, Bluetooth
- Graphics: Intel GMA HD Integrated Graphics
- Power: 57Wh 6-cell, 65W 20V AC adapter
- Dimensions: 13.13 x 9.41 x 1.09-1.26?
- Weight: 5lbs 5.1oz
- Retail Price: \$1,580

### Build and Design

To the naked eye very little has changed with the overall design of the ThinkPad T410 compared to past models. It still carries the black rubberized screen lid with ThinkPad logo, still offers the shiny matte-black chassis and



palmrest, and still uses the strong and highly visible stainless steel screen hinges. Those are the areas where the similarities stop. The port layout has significantly changed to allow an increase in available ports and even a few new types of connections. Once opened, ThinkPad fans will notice that Lenovo finally centered the screen, so no more thick bezel on one side and a thin bezel on the other. Another change is the shift from a two-piece palmrest and keyboard bezel on older models to one-piece design that is stronger and has fewer gaps to squeak. The bottom has also changed—with a user-access panel being the biggest addition—to let users install more RAM or a wireless card without tearing apart the notebook.

Build quality is a touchy subject for anyone

familiar with the ThinkPad brand and how it has changed over the years. Any change to the sacred ThinkPad is seen as negative, even if it results in a stronger notebook. The good news is that overall the redesigned chassis in the T410 still feels as strong as ever ... but the bad news is a few specific areas did lose some strength compared to past ThinkPads. The screen lid seems weaker on the left side which allows pressure applied to the lid to show through as distortion on the LCD. Only the left side of the screen cover shows this distortion but it is still more than past models. Another item is the access panel on the bottom of the notebook that is designed to let users access one of the system memory slots and an open mini-PCIe slot. This is easily the weakest part on the entire notebook ... bowing slightly when installed and flexing more than any surrounding panel. I really wish Lenovo went with a metal panel even if it slightly increased the overall weight of the notebook.

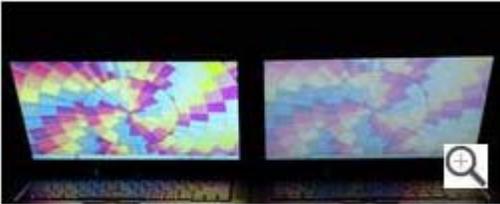
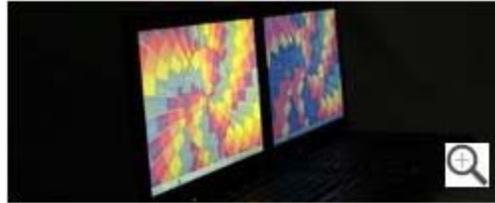
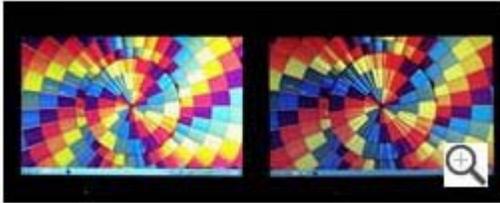


Access to internal components has improved over past models with the T410 no longer needing to have the palmrest removed to upgrade the memory. With the latest redesign Lenovo moved the RAM to the center of the notebook. One slot is accessible through the bottom of the chassis with the access panel removed and the other is underneath the keyboard. The keyboard easily comes out after you remove two screws and slide it out of position. For the average person this makes user upgrades much less complex. As always the hard drive has its own access panel which is removed with a single screw.



## Screen and Speakers

The screens offered on the ThinkPad T410 have changed very little compared to ones offered on the T400. The biggest difference is all T410 models come standard with LED-backlighting. With that said we didn't notice any decrease or increase for that matter in the quality of the displays. The WXGA+ screen on the T410 with dedicated graphics offers good color reproduction with better than average contrast. The WXGA screen on the T410 with integrated graphics also has good color reproduction and contrast but it has a slight blue tint compared to a neutral white on the WXGA+ panel. Backlight levels are stronger on the WXGA panel when both panels are set to the same brightness level. Viewing angles were similar for each notebook with most colors starting to distort and invert when tilted 15-20 degrees back. Horizontal viewing angles were better with colors staying accurate even from steep angles.



The onboard speakers sounded better than average for a business notebook. They were able to get loud enough to fill a small room but bass and midrange was still lacking. For the daily video conference or watching YouTube during a break they should be more than adequate for the intended market. Headphones for travel are also high on the list of must-have accessories.

### Keyboard and Touchpad



The T410 has the same redesigned keyboard that we saw debut on the T400s. It has a new function key layout with keys such as the Escape and Delete buttons increased in size while also added a backlit power button and microphone mute button. Another new feature which is located in the BIOS is Lenovo allows you to swap the function and control keys through software if you happen to be one of those people that enjoy the control key being the last key in the row.

The ThinkPad keyboard is still comfortable to type on for hours without creating too much hand strain. The redesigned keyboard has a few tweaks compared to previous models; narrower spacing between keys to lessen the chance of crumbs getting in and a softer typing feel. The softer and quieter typing feedback actually caused some typing troubles since I would type lighter on the keyboard and not fully activate keys. Once you got used to the difference it wasn't a problem but for those first mistyped passwords it was really annoying.

The touchpad is a textured Synaptics model that is very spacious to handle multi-finger gestures. The T410 supports two-finger scrolling, rotating, and zooming, as well as three-finger press and flick. In general use the touchpad is easy to use with no discernible lag and a very fast refresh rate. The acceleration speeds on both axes were equal?

so drawing a fast circle didn't result in an oval shape. The textured surface was easy to slide across in daily use even if your fingers were slightly damp. The touchpad buttons were easy to use and very comfortable to click. They offered a long throw with a soft clicking action that didn't emit any noise when fully pressed.

### Ports and Features

Port selection on the new T410 is excellent and a huge improvement over previous models. Lenovo added an additional USB port, added FireWire, added eSATA (for compatible models), and even tossed in a DisplayPort connection for digital video out without needing to use a docking station. In total this makes the ThinkPad T410 one of the most feature-rich 14" notebooks on the market, with four USB ports, VGA-out, DisplayPort-out, combo audio jack, modem, LAN, FireWire-400, optional eSATA, as well as an optional SmartCard slot. The T410 also has a SDHC-card slot and ExpressCard/34 slot for expansion.



*Front: SDHC-card slot*



*Rear: Modem, AC-Power*



*Left: VGA-out, LAN, three USB ports, DisplayPort-out, and Smart Card reader*



*Right: ExpressCard/34, eSATA, headphone/mic combo, optical drive, one USB, FireWire, Kensington lock slot*

