

PC Specialist Laptop review - 15.6" Cosmos II

Rationale

While I find my Nexus 7 to be excellent, it wasn't quite cutting the mustard when it came to certain tasks. I found myself borrowing my wifes laptop more and more and so decided that it would be more practical to purchase my own. The set of criteria I came up with when deciding on a configuration were as follows.

- ☐ Cost around £600
- ☐ Contain at least the following components
 - ☐ Intel Core i5 Haswell CPU
 - ☐ 8GB RAM
 - ☐ 1920 x 1080 screen
- ☐ Have a battery life of between 2 to 3 hours
- ☐ Be capable of gaming, but not necessarily at the highest settings

I chose PC Specialist as it was practically the only PC builder that allowed me to play around with the configuration to suit my needs. After reading the forums and reviews - both professional and user written - I was convinced and proceeded the configure and order a laptop based on the Comos II chassis. This chassis is actually a [Clevo W650SJ](#); more information can be found on the [Clevo website](#).

Specification

- ☐ 15.6" Matte Full HD IPS LED Widescreen (1920x1080)
- ☐ Intel® Core™i5 Dual Core Mobile Processor i5-4210M (2.60GHz) 3MB
- ☐ 8GB KINGSTON SODIMM DDR3 1600MHz (1 x 8GB)
- ☐ NVIDIA® GeForce® GTX 850M - 2.0GB DDR3 Video RAM - DirectX® 11
- ☐ 500GB SERIAL ATA II 2.5" HARD DRIVE WITH 8MB CACHE (5,400rpm)
- ☐ 2nd/3rd HDD HARD DRIVE OPTICAL BAY CADDY
- ☐ GIGABIT LAN & WIRELESS INTEL® N-7260 (300Mbps, 802.11BGN) + BLUETOOTH
- ☐ 3 Year Silver Warranty (1 Year Collect & Return, 1 Year Parts, 3 Year Labour)

Total Order Price: £604.00

I ordered the laptop without an operating system and put in a **250Gb Samsung 840 EVO** as I had received one recently as a gift. I also applied a discount code that reduced the cost by an additional £15.00.

Here is a quick explanation of why I chose some of the components.

15.6" Matte Full HD IPS LED Widescreen (1920x1080)

The default screen option is only 1368 x 768, a personal pet-peeve of mine. There wasn't much difference in price between the standard 1920x1080 and the IPS one and with the IPS screen getting great reviews from elsewhere, I chose the IPS part.

Core™i5 i5-4210M

This choice may surprise some people. Most of the reviews I read seem to base this laptop around a Core i7 quad core CPU, but to me this meant two things:

1. The CPU would throttle its speed when it got too hot and not boost to its full potential.
2. The battery life wouldn't be as good.

[This comparison of the i5 and i7 CPU's](#) in the same chassis seemed to confirm my suspicions; there would be a lot of extra heat and noise produced for very few gains.

2nd/3rd HDD HARD DRIVE OPTICAL BAY CADDY

I decided that I had no need for a DVD drive, but had a very real need for some extra hard drive space, so I ordered the caddy rather than any kind of optical drive.

INTEL® N-7260 wireless card

I also opted to replace the default wireless card with something faster. This is a 2.4Ghz b/g/n 2x2 card that runs at speeds of up to 300Mbps. Currently it connects to my Asus RT-66u router at 144Mbps.

Production Dates & Delivery

Processed Date	22-05-2014
Pre-Production Date	27-05-2014
Build Date	10-06-2014
Test Date	11-06-2014
QC Date	11-06-2014
Awaiting Dispatch Date	12-06-2014
Dispatch Date	12-06-2014
Delivery Date	13-06-2014 @ 13:20

I didn't pay for any fast track options as I wasn't in a rush for the laptop.

The total number of days it took for my laptop to arrive was **22 days**, of which **15 were working days**. The initial estimate was 10 - 12 working days so the estimate wasn't too far off.

I contacted sales support via the live chat facility on the website during this time to enquire as to the status of my laptop. As it turned out my laptop was scheduled to be built later that same day. The sales rep was very polite and informative. Overall I felt the ordering, production and delivery process to be very positive.

The laptop

The laptop arrived in a box in a larger box, well packed. The laptop box contained the following items.

- ☐ The laptop
- ☐ Power cable and brick
- ☐ PC Specialist generic manual
- ☐ Quick start guide
- ☐ £90 NVIDIA voucher for in game content

Aesthetics, usability and connections

The laptop arrived in mint condition; there were no scratches or fingerprints present anywhere. It has a very understated look which I find appealing. There are no manufacturer markings on the lid or underneath the screen which is unusual but nonetheless welcome.

The lid itself has a brushed aluminum effect but is in fact plastic like the rest of the chassis. It does however feel and look like a quality piece of kit.

When the lid is open, there are four sticks on the left hand side of the trackpad - a HDMI sticker, SoundBlaster Cinema logo, NVIDIA GeForce GTX decal and the traditional "Intel Inside" moniker.

Along the left hand edge there are the following ports from front to back

- ☐ 1 x USB 3.0
- ☐ 1 x HDMI out
- ☐ 1 x eSATA
- ☐ 1 x Gigabit RJ45
- ☐ 1 x VGA out
- ☐ 1 x power jack

In between the VGA out and the power jack is the only exhaust fan.

On the right hand edge you will find the following, from front to back

- ❑ 1 x 3.5mm microphone socket
- ❑ 1 x 3.5mm headphone socket
- ❑ 1 x USB 2.0
- ❑ 1 x USB 3.0

The DVD drive would be located here. This leads me onto my one and only complaint about the look, albeit very minor. I ordered a drive caddy to go on the place of the DVD drive but the DVD drive faceplate is still there. In my opinion it would have looked a little nicer if the faceplate was blank.

Continuing with the main body, the trackpad sits in its usual position. Its quite large at approximately 100 x 50mm. It is responsive and the buttons have a muted click to them which is good if you need to use the trackpad in a quiet environment like a bedroom.

I've found the keyboard to be one of the better keyboards I've typed on, with good travel and hardly any flex in the middle. For me, the Insert key and the Delete key at the top right of the keyboard are switched which takes a little getting used to. There is a numpad on the right hand side of the keyboard which is impressive and welcome on a laptop of this size. Along the top of the keyboard there are function keys which perform the following tasks.

- | | |
|-----|---------------------------|
| F1 | Enable / disable trackpad |
| F2 | Switch on / off backlight |
| F3 | Mute audio |
| F4 | Sleep |
| F5 | Lower volume |
| F6 | Increase volume |
| F7 | Switch display mode |
| F8 | Lower brightness |
| F9 | Increase brightness |
| F10 | Enable / disable webcam |
| F11 | Airplane mode |

Underneath the screen is a sound bar that produces OK sound for a laptop. Nothing to write home about but certainly better than I was expecting having read reviews that stated the sound produced was "a mess".

The screen itself is beautiful. Its bright, has excellent viewing angles and produces a crisp image. There is a little bit of backlight bleed at the bottom edge but it is only visible when the laptop is booting. More importantly, the screen arrived with no dead pixels.

Overall, I love the look of the laptop and feel of this laptop.

Hardware, software and general performance

Hardware

Under the hood is a Core i5 4210M CPU, 8GB RAM and a 500GB HDD. The hard drive make and model wasn't listed on the PC Specialist website, but mine arrived with a [Hitachi Travelstar™ Z5K500](#) which is a welcome change from the usual Seagate drives most laptops arrive with. However unless you choose a specific drive, I would assume YMMV if you leave the choice as the "default" drive.

The laptop is also equipped with an NVIDIA 850M GTX graphics chip with 2GB DDR3 memory. This is a 37W TDP part and should outperform the GT 750M, the GTX 760M and the GTX 765M.

The back panel comes off by unscrewing two screws then sliding the panel towards you. All the components are then exposed, ready to be removed or replaced. As I stated, I've replaced the 500GB HDD with a 250GB SSD and moved the spinner into the drive caddy. I removed the padding around the hard drive and attached it to the SSD instead. This was fairly easy but I may look at replacing the foam as it came apart quite easily.

Software

PC Specialist give you the option of buying a laptop without a Windows licence which is great for people like me who already have an operating system to install.

At the moment I am dual booting Windows 8.1 and Ubuntu 14.04. I installed Windows 8.1 first as Linux generally plays nicely when its installing and recognises thats Windows is present, configuring GRUB2 accordingly.

The drivers for Windows 8.1 were available from the PC Specialist website, although I did update the graphics drives from the NVIDIA website as the ones listed were an older version.

After installing Windows, installing Ubuntu is very easy, but here are a few simple tips to get you started. For the Linux gurus out there: my Linux knowledge is pretty basic, so apologies if my terminology is incorrect.

1. If you are dual booting and wish to install Ubuntu on the same drive as Windows, shrink the partition in Windows before you start.
2. EFI booting only works on the 64bit version of Linux.
3. During the install, select the "Something Else" option.
4. Install the bootloader to the Windows bootloader partition
5. Create an EXT4 partition for Ubuntu itself and remember to create a swap partition. The swap partition should be at least the same size as the amount of RAM installed.
6. Proceed with the install

The GRUB2 bootloader will take over after the install and give you the option to boot into Windows or Ubuntu.

Ubuntu recognised all the devices straight away, but I went ahead and installed [Bumblebee](#). This installs the proprietary NVIDIA driver as well as implementing an open source version of NVIDIA Optimus. The advantage of this is that the desktop environment will use the Intel integrated graphics and games can be set to use the discrete graphics chip, maximising performance and power.

Performance

With the SSD, the PC boots into Windows 8.1 and Ubuntu 14.04 in less than 10 seconds. This is using UEFI to boot. Both environments are fluid, responsive and stable.

To be blunt, I'm blown away by the gaming performance of this laptop. Of the little gaming I get time to do, I've managed to run Bioshock at ultra settings with AA disabled, Borderlands 2 at full settings with FXAA disabled, and Left 4 Dead 2 at its maximum settings with 2xAA enabled. When gaming the fan on laptop can get quite loud and the left side of the laptop can get hot, but I the noise can't be heard over headphones and fan does a good job of pushing out the heat.

Battery life is another area this laptop seems to excel at. For light office type work, I've managed to squeeze around 4 hours worth of work into a single charge. Gaming on the battery isn't particularly practical, but I managed about an hours worth of Borderlands 2 before I got a low battery warning.

Conclusion

I may have changed the configuration slightly if I was going to purchase this laptop again.

Firstly I would have added a **dead pixel warranty**. I was a little panicked about receiving a laptop with a dead pixel on the screen and this option would have given me a bit of piece of mind.

Secondly I might have gone for a **7200RPM hard drive** rather than the standard 5400RPM just to make disk reads a little quicker.

Finally, I wish I had ordered **Intel Ultimate N-6300**. This is a dual band (2.4 / 5Ghz) card which would have been preferable to me as I have a dual band router. I misread some of the information regarding the N-7260 believing it was dual band also.

Overall I would thoroughly recommend this particular laptop. Its performance is outstanding for the price and the build quality is excellent. I would also recommend purchasing a laptop or desktop from PC Specialist. I cannot fault them on their customer service, their very competitive pricing and the ability to tailor laptops to suit your particular needs.