

How to pick the perfect netbook for you

- netbook buyer's guide -

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Introduction

The term "netbook" is widely used to name every type of sub-laptops. In reality, netbooks are portable, compact and affordable electronic devices, powerful enough to run regular everyday applications. They provide most of the features you would need from a portable laptop, but are not made to become your primary computers. They're more like a secondary travel companion.

These are relatively new gadgets, as they entered the market in late fall 2007 with the first 7" EEE PC. Back then, they were tiny notebooks with poor hardware, autonomy and features. But a lot has changed since, as the netbooks industry grew exponentially and these gadgets evolved from the weak machines they were, into devices that could now easily replace a standard notebook.

In fact, during the fall of 2009, it was estimated that 1 in 5 laptops sold worldwide was a netbook, and they are gaining ground every day. All the major producers have a netbook in their offer, like Asus, HP, DELL, Acer, MSI, Samsung, Lenovo and the future looks quite good for these compact laptops.

What's the purpose of this guide?

I was talking with some of my friends the other day about my plan to buy a new netbook and I was amazed to see most of them didn't even knew what a netbook is, although they all work in IT related domains and deal with computers every day.

That's why I decided to write a quick guide (this one) that would really help those looking for a mini notebook, by explaining what netbooks really are, what are their pros and cons, showing the best available options on the market (according to price range and features) and also by suggesting some reliable and trustworthy places where they could find great deals on such netbooks.

This way, by the end of these pages, you will be able to tell if netbooks are the portable devices you're looking for and if they are, you'll know what to get and where you can find the best bargains.

My experience with netbooks

of course, you might wonder what gives me the authority to advice others on this subject. First of all, I must say I'm an IT College graduate (with a diploma in Computers Science), so I've

had my fair share of experience with both hardware and software aspects. Also, I worked as an IT Editor for the biggest Technology website in my country between 2006 and late 2008, where I was able to get my hand on most devices available on the market during all that time. So I've gather some knowledge on testing gadgets.

Also, these days I run a website about netbooks: <u>www.netbooklive.net</u>, so I'm very familiar and always up to date with what's hot on this subject.

Last but not least, I'm a netbook owner and user myself. Everything started when my laptop's mother board fried and I had to replace it for a couple of weeks with a borrowed MSI Wind U100. Although reticent at first, I learned to appreciate the little gadget to the point of replacing my every day laptop with a netbook (a Toshiba NB205). Not as a primary computer, as I have a powerful desktop too, but as a portable gadget I can easily carry around wherever I might go (at the office, when traveling, in the park or during holidays).

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Those being said, enough with the introduction, it's time to learn more about netbooks. And let's see what we are going to talk about:

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You could choose to skip to the chapters you desire, but I do recommend you read them all, as they provide useful info worth knowing before buying a new netbook.

1. What's the difference between a netbook and a standard laptop?

First of all, laptops are bulky and heavy, at least the ones with a 14 inch screen or above.

Netbooks on the other hand are a lot lighter (most weigh around 2.5 - 3 lbs (some even less – see this list of the lightest netbooks on the market), while laptops weigh 4-5 lbs or more) and have a compact footprint. Thus, they can be easier carried around when needed.

Then, netbooks offer usually a better autonomy than most laptops do. Nowadays the mainstream devices will boost something **between 5 to 10 hours of real tested battery life**, even though on paper these figures can pass the 14 hour mark. Most laptops on the other hand can't compete with that, although there are a few exceptions, like the ultra-portables from Sony Vaio, Toshiba or the new Macbooks. But, they do come with hefty price tags.

And speaking of price tags, **netbooks have the advantage of being cheap**. You can easily find something good for around \$350 right now, with most versions averaging between \$250 and \$500, for the top models.

Netbooks are less powerful than most laptops, even though they can be perfectly used for everyday activities like Web-surfing, watching movies (HD content can be a problem for most, but there are some even capable of handing 1080p clips), listening to music and working with standard applications like a light photo editing software or text editors like Microsoft Word. They are not made for resources hungry applications though, like games, rendering software, etc. So yes, laptops are usually more powerful, thus if you need raw power you should choose them over netbooks.

Also, you should know that **most netbooks don't come with an optical unit drive**, but you can use an external one connected via USB (they cost around \$60; <u>you can find some good options in here</u>).

And if someone told you that netbooks boot faster than other computers, that's not really true. Devices equipped with ordinary hard-drives and regular full operating systems like Windows or **Ubunutu boot actually slower** than standard laptops/desktops, because of their poorer hardware. There are some very light OSes that can boot in just seconds, but don't get fooled by that: those are limited in terms of features and capabilities.

These are the important differences between netbooks and laptops. Here you can find more

about what netbooks are and what you should expect from them.

As a wrap up, netbooks are compact, more portable notebooks, good enough for regular applications, while laptops can offer better performance, but for a bigger price and while sacrificing autonomy and portability. So, no wonder netbooks become so popular so fast, as most people don't really need raw performance from a portable device.

2. Main hardware specs for a netbook

This chapter is a little bit more technical, so you might want to skip this if you don't like such details. But I'd advice you not to, as you'll get an idea on the components a netbook houses and the performances they provide. Thus, you will be able to easier choose a device according to your needs, in the next mini-chapter.

2.1 Display size and resolutions

There are many types of netbooks out there with many types of screen sizes. In the following list you'll find the most common display dimensions, along with the associated resolutions:

- $7 \text{ "- } 800 \times 480 \text{ px}$
- 8.9 "- 1024 × 600 px
- 10.1 "- 1024 × 600 px, 1280 x 720px or 1366 × 768 px
- 10.2 "- 1024 × 600 px
- 11.6 "- 1366 × 768 px
- 12.1 "- 1280 × 800 px or 1366 x 768 px

Also, you should <u>see this picture here</u> that would give you a better idea on how a web-page is represented on each of the resolutions above.

I for one am a fan of the 10.1 - 10.2 inch and 11.6 inch screens, because they provide the perfect balance between size and resolution. A small sized display with a small resolution won't give you enough working space, while a decent sized one with a too big resolution might be painful for your eyes, as everything will be smaller and harder to read (that's the case for the 10.1" screens with 1366 x 768 px resolutions. I don't have problems with my eyes and I don't use glasses and I still got a terrible headache after using a netbook with such a screen for just around 20 minutes.)

Recently, a couple of producers have started shipping tablet-netbooks with touchscreens. They

are pricier, but offer enhanced user experience. Actually, I own such a device myself and I can say I can hardly seem myself using a mini laptop without such feature right now, as it is both comfortable and practical. These mini laptops with touch displays are called tablet netbooks and you can find more info on the best picks available via this link.

Of course, there might be other options, my best advice to you would be to be careful and pick a screen with a good enough size/resolution rapport and decent brightness. And if possible, try to see the device in a showroom before; or at least search online for what other buyers have to say about the display of the exact version you would consider buying.

2.2.1 CPUs, Chipsets and Graphics

It's very difficult to give you a complete view on all the platforms used on netbooks, as there are many options and choices available. We're only going to focus on platform used on 10 inchers, although we will mention a couple of words about the ones on bigger 11.6 and 12 inch machines.

However, almost all the current generation netbooks use Intel's Atom platform, that's why we're going to focus on this one. However, there are info on AMD's platform for mini laptops further below.

The Atom platform itself divides between several series of CPUs, paired with a couple of different chipsets and graphic boards.

Here are the main Atom CPU models and graphic options:

- Atom N Series 512 KB cache L2, 533 or 667 MHz FSB and HT. These are the first and the most popular processors from the Atom series, launched back in spring 2008. There are 2 different versions, the N270 (1.6 GHz, 533 MHz FSB) and the faster N280 (1.66 GHz, 667 MHz). Both have the same 2.5 W TDP. There are usually paired with Intel's GMA 950 graphics, a chip capable of only medium at least video performances (no HD playing, no games)
- Atom 300 series the only dual core CPU from the Atom series, with 533 MHz FSB, 1 MB Cache L2 and 1.6 GHz but a way bigger 8W TDP (so provide poorer battery life). You can find these paiered with the same GMA950, but mostly with Nvidia's ION platform, one that uses a dedicated Nvidia GeForce 9400M to provide way superior graphic

- capabilities (can play decently some of the modern 3D games, can play 1080 video content)
- Atom Z series low power CPUs with 512 KB Cache L2, 400 or 533 MHz FSB and Hyper-Threading, with frequencies starting from 800 MHz on the Z500 and going up to 2 GHz on Z550. They offer a very low TDP (between 2 and 2.4 W for the top versions). For Z520 and above you will also get the Intel® Virtualization Technology on. There are paired with Intel's GMA 500 graphics, with hardware H.264 decoding, which means they can handle 720p content, but are still not a match for the netbooks equipped with ION.
- New N series, as of early 2010 (more info below)

So in terms of CPUs, there aren't that many choices. You have the low power Z series, the cheap and common N series and the powerful but energy avid Atom 330 dual core CPUs.

Most of these platforms offer limited graphic performances. There is however the solution of joined forces between an Intel Atom CPU and an Nvidia 9400M graphic card (like mentioned above) that greatly boosts them. **This solution is called Nvidia Ion** (with a low end version, Nvidia Ion LE).

Update - Early 2010

As of early this year, there is a new popular platform used on most netbooks, called PineTrail.

Unlike the old platform that used separate chips for CPU and GPU (graphics), Intel embedded these two on a single chip now, thus creating a more power-efficient system. **However, not much has changed in terms of performances,** PineTrail processors being virtually as fast as the old ones at similar frequencies.

There are only a couple of processors built on this new platform right now:

- Atom N450 the most common these days, with 1.66 GHz clock-speed and 667 MHz FSB, 512 KB Cache
- Atom N470 slightly faster, with 1.83 GHz clock-speed and 667 MHz FSB, 512 KB Cache
- Atom N455/N475 similar to the above, but with DDR3 memory support

All these processors are single core ones. There are also some dual-core CPUs built on the new PineTrail platform available (like the D510), but only used in nettops for the moment. Still, Intel

claims to be working on more energy efficient dual-core atoms that could be used on mini laptops too.

In terms of graphics, this architecture uses the integrated Intel GMA 3150 solution. There's no actual boost in performance over the previous generation here also. At the moment of this post a standard netbook quipped with N450 processor + GMA 3150 graphics and Windows 7 OS will be able to run decently everyday applications, but won't be capable of running games or HD multimedia content, nor Flash, nor self-stored.

In order to cope with this problem, you can upgrade your netbook with a Broadcom Crytstal 3D accelerator (more details on this one here); however this won't work on all devices (here's a list of compatible devices).

There's also another solution, one that brings the PineTrail platform and the new Nvidia ION solution together, offering mini laptops capable of playing HD content and games. However, performance limitations imposed by the single core CPU remain present.

Update - Late 2010

A couple of things changed. While the N450 Atom processors were the hearts of most netbooks and mini laptops sold during 2010, with the Fall, new generations of processors entered the market.

First, we have the Atom N455 and N475 mentioned above, with support for DDR3 memory. Performance wise, they are nearly the same as their DDR2 relatives, N450/N470, as the small differences in terms of performances are impossible to spot in every day usage and only visible in synthetic tests.

But there is more: the first dual-core processor specially designed for 10 inch netbooks, the Intel ATOM N550. Clocked at 1.5 GHz and with 1 MB cache, this one comes with HyperThreading and supports DDR3 memory.

What most important is that it manages to bring significant improvements (around 20-30%) in terms of performances over single-core CPU equipped netbooks, especially when dealing with multitasking. However it does not sacrifice battery life; it is in fact nearly as energy efficient as the older N450 processor. Of course, netbooks with N550 on board will be more expensive (around 20-50 bucks), but they will also be faster, while providing good autonomy.

Intel plan to pair N550 with the same GMA 3150 graphic chip, but also expect to see 10 inchers with Atom N550 and Nvidia ION. Thos will be true multimedia mini beasts.

AMD try to take over Intel in this field, with the launch of their Nile platform. There aren't many 10 inch netbooks with the new AMD platform inside yet on the market, but you should expect the Athlon II Neo K125 processor to be used for these machines, a single core CPU clocked at 1.7 GHz, with support for DDR3 memory and 1 MB of cache.

Paired with ATI HD 4225 graphics, it will be able to offer quite good everyday performance, better than what devices with single core Atom N45x/N47x CPUs and GMA 3150 graphics can provide. In fact, devices built on this platform will be quite snappy for a netbook and capable of handling HD content. Unfortunately, in terms of battery life, AMD powered mini laptops are still far behind their Intel competitors, but at least they are better priced.

Platforms used on 11.6 and 12 inch mini laptops

While space inside a 10 incher is limited and you'll only going to get low power single core processors in most such devices, 11.6 and 12 inch mini laptops can be way better in terms of specs and power.

The guys at Intel dominate these fields also, with basically two platforms:

- Atom D series
- Intel ULV series

The first contains processors like the D410, D510 and D525, Atoms designed for nettops and mini desktops and ported inside mobile computers. Most of them are dual-core CPUs and are decently fast. They are used on some 12 inch machines, where they are paired usually with Nvidia ION graphics, allowing good performances and graphics, plus decent battery life, for a good price.

The Intel ULV series on the other hand are the best you can get inside these machines.

First, **there's the older generation**, with dual core processors like the SU4100 and the SU7300, paired with DDR3 memory and Intel 4500HD graphics. Those are enough to run properly most of your daily apps and handle HD content, even 1080p. However, resources hungry apps and games however are still not a match for them.

And then **there's the current Intel ULV platform, Arrandale**, with low-voltage Core i3, i5 and i7 processors. Those are 20-50% faster than their predecesors and are paired with better graphics: Intel HD Graphics chips. They are energy efficient as well, but devices built on this platform are quite expensive. Still, if you want the best configuration on an 11.6-12 incher, this is what you should get.

As of mid 2010, with the launch of their Nile platform, AMD started to bite Intel's market share in these two segments and with quite some success. There are quite a couple of new and interesting AMD equipped mini laptops, especially in the 11.6 inch segment.

Dual-core CPU configurations with AMD K325 processor, 2-4 GB of memory and ATI HD 4225 graphics become more and more popular, as they can provide good performance for a portable little computer, both in everyday apps but also when dealing with multimedia content (HD movies and even some older games).

Their problem remains of course battery life, where they are still behind Intel powered machines. But they do come with significant smaller price tags and the overall price/features rapport makes them very attractive options.

More about hardware and specs will come in future updates of this guide. In the meantime, <u>do</u> <u>not hesitate to contact me</u> if you have any questions. And remember, there are other important features on a mini laptop, not just the hardware inside.

2.3 RAM memory

Nowadays most 10 inch netbooks come with 1 GB of RAM. But they can be easily upgraded to 2 GB (most only support up to 2 GB and only offer one memory slot, so when upgrading, you will have to buy a 2 GB module and replace the 1 GB one offered by default). That will cost you around \$20-\$50.

All that needs to be done is unscrew a plastic cover on the back of your device and stick the extra RAM module in its place. There are netbooks that have a compact body and lack that cover; upgrading RAM for them is more complicated and should only be done by specialists. In both cases, it would be better to order this upgrade from the retailer, when you buy the device, because if you want to do it yourself you might lose warranty (it depends on each seller's policy).

Bigger 11.6 and 12 inch machines usually come with 2 GB of memory and will support up to 4 GB. Most of them come with 2 RAM slots so you can use dual channel 2x2GB modules for better performances.

2.4 Storage space

Mainstream netbooks come with 160/250/320 GB 2.5" 5400 rpm hard-drives. Some can be configured with bigger storage, and you can also replace the drive by yourself with another 2,5" laptop HDD(I would recommend a 160/250 GB 7200 rpm one, you'll really see the increase in performances and the storage space provided is more than you will ever need on a netbook, plus the price is actually pretty good for this upgrade).

Of course, there are also netbooks that ship with SSD drives. The performances provided by such drives are way superior, but storage space is smaller (32 to 256 GB) and they cost many times more than a regular hard-drive. I for one am not that keen on using an SSD on a netbook, as they are too expensive. Still, there are some good priced options.

Older or cheaper netbooks can have Flash storage drives. These offer low performances and low storage space, between 2 and 16 GB. I would stay away from these options unless you are really looking for something really cheap (around \$200).

2.5 Connectivity

Most netbooks offer at least wireless Wi-Fi 802.11 b/g and Ethernet connectivity. These are a must if you want to easily connect your mini laptop to Internet. The faster 802.11 N wireless became a standard on netbooks launched in 2010 and I'd recommend choosing a device with this feature, as the speed difference is quite noticeable.

Bluetooth connectivity has also become a standard, with extra functions like EDR 2.0+ and AD2P (useful for connecting Bluetooth stereo headsets to your netbook).

As for mid 2010, we've seen faster Bluetooth 3.0 becoming a standard on many small laptops and we should expect USB 3.0 slots to be more present on them also, with their faster transfer speeds and all the other advantages.

Last but not least, some netbooks house an internal 3G modem. You just have to insert a SIM

card and get virtually unlimited Internet access (as long as you're in a covered zone). This is also a good to have feature, especially if you travel a lot in places without Wi-Fi coverage, but it will cost you some additional tens of bucks.

2.6 Keyboard and Touch-pad

When I first tested the early 7" netbooks, I found the keyboard so crowded and the keys so small I thought only a kid could use it. And no, I don't have big fingers at all.

Things changed now and most 10" netbooks or bigger have good, ergonomic and pretty comfortable keyboards (around 92-95% of a standard laptop keyboard). Some even offer fullsize keyboards.

As of 2010, chiclet keyboard with independent keys became popular and you will find these on most netbooks. Standard flat keyboards are still available on older devices or on new cheaper netbooks.

As for track-pads, having a decent sized one with individual click buttons is a must. I can't really describe how frustrating is to have to move your finger inside a 1 by 1 inch border when you have to do things fast. And while most of the 9" netbooks and above have satisfactory touch-pads, I still prefer using a mouse if I can (one of these for instance).

2.7 Other stuff

There are a couple of other things you should know about netbooks. First, they don't have an internal optical drive (with one or two exceptions), but there are external ones available to purchase if you really need one. You can find the best options here.

Netbooks also come with other features, like:

- USB slots: I do recommend choosing one with at least 2, because you might never know when you'll have to connect a flash drive, external hard-drive or other peripherals.
- card readers
- VGA (Standard D-Sub15 or Mini-VGA) or HDMI output
- web cams between 0.3 to 2 MPx
- Audio jack for connecting headphones or an external sound system
- Kensington locks

2.8 Operating systems

With the new Windows 7 OS entering the market in October 2009, it quickly became standard on all netbooks launched in 2010.

You will still be able to find Windows XP on some older devices, but I do recommend choosing the new operating system, it is way more safe and reliable.

However, due to the limited performance levels of netbooks, you might find Windows 7 OS on mini laptops somewhat sluggish, so don't expect too much out of them.

And there's one more thing, most netbooks are equipped with the entry level Windows 7 version, Starter edition, and this one comes with some limitations you should be aware of.

There are still some interesting free alternatives to Windows, although most users won't use them. Kubuntu, Jolicould, Meego or Android are only some of these light OSes, way snappier but also with way fewer options than Microsoft's OS. Still, given time, they will be able to replace Windows on these small machines, at least for basic everyday tasks, like websurfing, writing, listening to music or chatting.

2.9 Accessories

There are many netbooks accessories on the market, some better than others. I for one consider the following must haves:

- a good and compact wireless mouse
- a sleeve that can perfectly fit the netbook and protect it
- maybe some kind of bag/case for it, useful when travelling

Besides those, there are external optical-drives, external hard-drives, flash drives, skins and many others. You can find my view on the <u>best netbook accessories in this post</u>.

3. How to pick the netbook that better suits your needs?

Now that you know what netbooks really are and what you should expect from them, I have to tell you that there are different types of netbooks on the market. Thus you should carefully choose the one for you, according to your requirements.

3.1 Do you need a very light device?

Then you could get a 9 inch netbook or even a smaller 7 inch one. They are usually cheap (below \$200) and have the advantage of being really small and weighing just around 2 lbs. However, most of them aren't too powerful and have low resolution screens and tiny keyboards. Not to mention you'll only find them used, as they are no longer produced for quite a while.

<u>Update:</u> You can also find 10 inch netbooks weighing around 2-2.5 pounds also and they'll provide way better performances than those 9 or 7 inchers developed many years ago. Here are some good options for light mini laptops.

3.2 Do you need a netbook for school/college?

If you need a netbook for school, not too powerful, not too big and not too expensive, then you should go for the 10" segment. You will find the most diversified offer here, with prices between 300 to 400 bucks, good hardware specs (Atom CPUs, 1 GB of RAM, 250 GB hard-drive, Wi-Fi 802.11 b/g/n, Bluetooth, Windows OS) and great batteries (7 to 12 hours tested autonomy).

Also, devices in this class are solid built and durable, especially if you'll protect them with a sleeve or/and a case. Thus, they have all the qualities a netbook for school needs and are even good enough for grownup users, not just kids. More details and some good options on such netbooks, in a future update.

3.3 Do you want a netbook to replace your bigger laptop?

If you want such a netbook, there are two choices. You could choose the 10" class with the advantages specified above, but the transition from the bigger screen to such a small one and the lower performances might not hard to swallow.

That's why I'd recommend the second option, one of the 11.6" or 12" netbooks. There are quite a couple of options available right now and more are on their way. They will come with bigger/better displays, better performances (dual core Atom CPUs or CULV processors, Nvidia Ion platform) and still good autonomy, compact size and light weight. Features like 3G connectivity and even fold-able touch screens might be present also.

It's true that these netbooks will not be cheap; they cost somewhere between \$400 to \$700 for the top versions, but I do reckon prices will drop as more producers will bring their products on the market.

3.4 Do you need to use the netbook unplugged for a longer period of time?

I believe it's important for a netbook to have solid battery life. So, according to the autonomy you would need, you could buy netbooks with a 3 Cell, 6 Cell or even an 8-9 Cell battery. The last option is only offered on a very limited number of netbooks for now, though.

A 3 cell battery offers between 2 to 5 hours of life, depending on hardware specs, operating system, etc. A 6 cell battery on the other hand, would usually give you between 75 to 100% extra autonomy. **So I would really advice picking such a bigger battery**.

Most netbooks have swap-able batteries so if you bought a device with a smaller one, you could replace it later. But this will not be cheap and you'll end with two batteries, when you only need one. So you should definitely pick the 6 Cell (or bigger if available – although it would add to the weight of the machine) battery for your netbook from the beginning.

3.5 Do you want a specific Operating System?

Although around 90% of the netbooks retail these days with Windows 7 or Windows XP (for some older and cheaper versions), you might want a specific OS or maybe you're just one of those people hating Microsoft :P.

In these cases, you have the option of buying a netbook with several Linux distributions (light specially made versions from the netbook producers or better and complex options like Kubuntu). Or one of the new additions, like Meego and Android. **Netbooks sold with these OSes will be cheaper**, as they are free and you won't have to pay extra for the operating system, like when buying Windows equipped machines.

However, on these OSes you won't be able to run some of the programs you know from your Windows PC (Word, Excel, PowerPoint), although there are alternatives with similar features.

I for one would advice most of you to get a Windows powered netbook, with Windows 7 preferably, although XP is fine too, but not Vista (because Vista is a resources hungry OS). This way you get the Microsoft OS for a better price than the one you'd have to pay later, if buying it separately. Also you get a solid full OS capable of running all your daily tasks and applications.

And of course, you can also install Linux or Moblin, Meego or Android later on if you want to.

3.6 Do you have a maximum budget for your netbook?

This aspect is also crucial in choosing the netbook you want. It's hard to make an exact price table, as there are so many netbooks on the market with so many options. But at the moment (early fall 2009), you should be able to get:

- medium 7 to 9 inch netbooks for something between 200 to 300 bucks
- mainstream 10" netbooks good enough for the standard user for between \$270 and \$400
- more powerful "laptop replacements" for above \$400 (and maybe up to \$600 or even more)

There are of course some products that will jump these limits, like the ultra-portable ones, the fashion designed versions or the tablet-netbooks with touch screens.

3.7 Still not decided on what you should get?

I tried to cover a couple of scenarios here that should answer most people's questions. However, if you've read the above and still didn't know what kind of device you should get (or have more questions unanswered by this guide), just send me an e-mail and I'll try to help you if I can, by providing advices according to your needs. Be sure I'll answer you all, just be patient, it might take a couple of days sometimes.

4. Types of netbooks

During the last year I managed to get my hands on some of the most popular netbooks on the market so I could come with advised opinions on what are the best available minim laptops in certain classes at the moment.

You should know I'm a very picky person, thus if I consider a product to be good, that must mean it's really awesome: P (you'll notice that my opinions are most of the times also backed-up by the reviews owners gave the products on big sites like Buy.com, Amazon, Newegg, etc and overall opinions on forums and websites)

4.1 7-9 inch netbooks

Early netbooks launched back in 2007 were extremely small and compact, having 7" screens. They've been well received by the public, but still too small to have a great impact on the notebooks market. That's why only a couple of months later, during spring-summer of 2008, the 9" versions emerged, with models from several big producers like Asus, Dell, HP or Acer.

The most appreciated such netbooks at their time (back in 2008 that was) are these ones:

- Asus Eee PC 701 4G (Intel Celeron M ULV 900MHz processor, 512 MB RAM, 4 GB flash storage, 7" screen 800 x 480 px resolution, wireless 802.11b/g, Xandros Linux OS, 3.5 hours real battery life, weighs around 2 pounds)
- <u>Dell Mini 9</u> (Intel ATOM N270 1.6 GHz processor, 1 GB RAM, 16 GB SSD storage, 8.9" glossy screen 1024 x 600 px resolution, wireless 802.11b/g, Linux or Windows XP OS, 4 hours real battery life, weighs 2.2 pounds)
- Asus 900HA (Intel ATOM N270 1.6 GHz processor, 1 GB RAM, 160 GB hard-drive an 10 GB EEE Storage, 8.9" glossy screen 1024 x 600 px resolution, wireless 802.11b/g, Windows XP OS, 5 hours real battery life, weighs 2.7 pounds)

These days however it's **hard to find new 7 or 9" netbooks in stores**, as they have been replaced with the bigger new 10" generation. That's why prices can be also pretty high. But, if you really want a more compact and light netbook like these 7 or 9 inch models, you can try getting them used or refurbished (so you'll end up with better deals, most of the time below 200 bucks).

4.2 10 inch netbooks

Since fall 2008, it was clear that the 9" netbooks had their limits: still the keyboards were too crowded and uncomfortable to use, displays too small and prices pretty high. Thus, producers started working on the next generation, the 10" netbooks, the ones that quickly brought netbooks the success they enjoy today.

These were received by many as the perfect combination between portability, size, performances and price.

There are actually two types of 10 inch netbooks available, the older generations with N270/N280 or Zxx processors and the new ones built on the Pinetrail platform (N45 \times /N47 \times /N550 + GMA 3150).

You should know that there are no real performance differences between them, the new ones offering some noticeable improvements though, especially in terms of extra features, better overall autonomy and improved design and construction quality. Still, those machines equipped with dual-core N550 CPUs are faster.

From the older devices, you could still get one of these (and you'll probably get them for discounted prices right now):

- Toshiba NB205 (review here) (Intel ATOM N270 1.6 GHz processor, 1 GB RAM, 160 GB hard-drive, 10.1" screen 1024 x 600 px resolution, wireless 802.11b/g, Windows XP OS, 8 hours real battery life, weighs 2.9 pounds) this is the netbook I have for more than a year now and can now be found for less than \$300. Definitely a price worth paying.
- Asus 1005HA (review here) (Intel ATOM N280 1.66 GHz processor, 1 GB RAM, 160 GB hard-drive, 10.1" ultra-glossy screen 1024 x 600 px resolution, wireless 802.11 draft n, Windows XP OS, up to 10 hours real battery life, weighs 2.9 pounds) around \$330
- Acer Aspire One 150 (review here) (Intel ATOM N270 1.6 GHz processor, 1 GB RAM, 160 GB hard-drive, 10.2" glossy screen 1024 x 600 px resolution, wireless 802.11b/g, Windows XP OS, 6 hours real battery life, weighs 2.8 pounds) around \$270

As for the new series, I do recommend these devices (click each title for my review on each of them):

- <u>Toshiba Mini NB305</u> (the most comfortable)
- Asus EEE PC 1001P (the best in terms of price/features)
- Asus EEE PC 1005PED (the one with the best autonomy).

- Asus 1005PEM (the fastest one, with N550 processor)
- Samsung N230 and Asus 1018P (the affordable business netbooks)

Also, devices like the Lenovo S10-3, HP 5102 or the Mini 210 or Samsung N150 are definitely good picks. In fact, I will advise you to check out this post on the **best 10 inch mini laptops** available on the market right now for more details.

4.3 11.6 inch netbooks and above

11.6 inch netbooks entered the market in early 2009 but quickly became popular, as they managed to offer better hardware, more ergonomic keyboard and higher quality displays than the 10 inch mini laptops, while still keeping prices affordable.

First 11" netbooks were built on Atom platforms. Some of the best such devices were the **Asus 1101HA** (more detailed review here) or the **HP Mini 311** (this one is pretty popular now also, as it comes with a dual-core Atom and Nvidia ION graphics and offers a great price).

Shortly after that, Intel introduced the ULV platform, one capable of offering way better performances than the Atoms, while keeping prices pretty much low (around \$450) and autonomy decent (around 5 hours). This platform offered single and dual core CPUs options, although mostly single cores were included on 11.6 inch mini laptops.

The new generation Intel Arrandale platform is not present in a vast number on 11.6 inchers, as well as AMDs affordable Nile platform.

For updated info on the latest recommended 11.6 mini notebooks, see this post <u>best 11.6</u> inch netbooks available right now.

4.4 12 inch mini laptops and above

The problem with all these netbooks above is the fact that they really lack potent hardware, capable of snappy everyday performance. They are just too small for this, but if you want a portable device that can offer seamless everyday experience, you'll probably find it in the 12 inch mini laptops class.

Performance and extra features come with a price though, so be ready to pay between \$450 and \$1000+ for a good 12 incher. Check out this article for more details on the best 12 inch laptops available on the market right now. I've devised them according to price range, so you'll find nice options for decent money, but also some devices most of us can only crave for.

4.5 Touch screen netbooks

Last but not least, there's a new subclass of netbooks emerging lately: the so called tabletnetbooks, mini laptops with foldable touch screens, similar to tablet-PCs, but yet better priced.

Of course, when compared with standard netbooks, prices might seem pretty steep for these devices, but those touch displays will really enhance your everyday experience with the PC. Being able to navigate with just a touch of your finger is priceless and I guarantee once you've tried it, you'll never want to go back to a regular computer (I for one had to... that's the worst part of only having computers for tests: you have to turn them back after a couple of days).

Remember that these devices are still in their early days, so if you want something affordable (around \$500) you'll have to cope with decent to poor performance (they come with the standard PineTrail platform inside). The best options right now are:

- the 8.9 Inch Asus EEE PC T91MT very light and portable, with an ATOM Z500 processor, 32 GB SSD storage and GMA 500 graphics
- the 10.1 inch Asus EEE PC T101MT with a nice resistive display and perhaps the best design and build quality in its class (<u>detailed review for this device in here</u> or a comparison <u>between this one and the smaller T91MT in here</u>)
- Viliv S10 the most compact and slim 10 inch tablet-netbook, boosts the same Zxx
 Atom platform, but paired with high-capacity SSD storage and a capacitive display.
 Prices get over \$1000 for the best options though. Mode details on them in this post.
- **Lenovo S10-3t** a 10 incher with a capacitive display and nice price tag, but pretty bulky and not that great of a looker

Also, I would advice taking a look at this <u>post on the best tablet netbooks available on the market right now</u>. It is updated often and provides up to date info on existing devices.

4.5 Touch tablets

If touchscreen tablets were in their early days 6-9 months ago, you can now see quite a couple of good devices available and announced. While we were expecting for a bunch of such devices for 2010, now I am pretty confident that 2011 will be their strong debut year.

Unlike the convertibles netbooks above, these gadgets don't offer a physical keyboard, but only a big touch-display on a thinner and lighter device. Meant for content consumption, they

will be great for web-surfing, using social media services, watching movies, listening to music or reading books.

Right now, the most popular such device is by far Apple's iPad.

There are some others available in stores, like the WeTab, <u>Dell's 5 inch Streak</u> or the <u>Archos tablets</u>. However, the big names are not yet here. <u>Samsung Galaxy Tab</u>, <u>RIMs BlackPad</u>, HP and Dell's Slate, <u>MSI WindPads</u>, <u>Notion Ink Adam</u> or the <u>Asus EEE Pads</u> are just some of the devices that will be available in the next months.

So expect more info in this chapter in a future update of the guide. In the meantime, you can check out <u>alltouchtablet.com</u>, a pretty good blog on this type of touch gadgets.

5. Accessories and Upgrades for your netbooks?

Although netbooks offer you almost anything you need out of the box, there are a couple of accessories every netbook owner should have. You can choose to <u>read this article</u> **about the** <u>crucial netbook accessories and upgrades you should consider as a netbook user</u>, or find below a list of the ones I consider important and use with my netbook.

5.1 A wireless mouse

I for one **am not a very big fan of the touch-pads on netbooks**, as in most cases they are too small and a little bit uncomfortable to use. Thus, **I recommend using a wireless external mouse**, at least when you use the netbook at the office or at home. It's important to pick a cordless device so you won't get stuck with extra wires on your desk, but you should also pay special attention to autonomy, size and ergonomics.

There are many different options for portable mice on the market at the moment. I have a Logitech VX Nano and I totally recommend it, but you can also read in this post here more about some of the mice for netbooks I consider best buys right now. You should pick one of those, according to your requirements and budget.

5.2 Upgrade RAM

At the moment, almost every netbook comes with no more than 1 GB of RAM installed. Thus, I advise you to upgrade it from start with one extra module (will **only cost you around \$20**). **Brand doesn't really matter when you choose the memory module**, but you have to be careful

to get a module compatible with your device. More details on how to pick the needed RAM and how to install it in your netbook, in a future updated version of this e-book.

5.3 An external optic drive

Netbooks lack an internal optical unit. In order to cope with this downfall, there are a couple of external ultra-slim and ultra-light such external drives that can be easily carried around and connected via USB when needed. You'll mostly find CD/DVD units, but there are also some devices capable of playing Blu-Ray disks.

So, if you're looking for such an external optical drive for your netbook, <u>here are the best</u> options at the moment.

5.4 An USB flash drive

Having an USB flash drive in your netbook bag can always come in handy, cause you never know when you will need to transfer something on or off the little laptop. And since these devices are really cheap, I would recommend at least an 8 GB one. You can find some very good options here.

5.5 Protection accessories

A case, sleeve or a skin are much needed accessories for your netbook, especially if you buy one of those glossy devices. I for one only use a sleeve, and it's important that it will perfectly fit the netbook. Some producers offer a sleeve when you buy the netbook, but most of you (and me included) won't be satisfied with the looks and quality of that standard sleeve and rather spend some extra 10-20 bucks for something better.

If you're looking for some good and affordable options on such protection accessories, you should see this list here and also this post on recommended netbooks cases and covers.

6. Where can you get the best prices and deals for netbooks?

If you've got this far, you should already know a lot about netbooks and you are convinced such a device is what you need.

That's why I want to give you a final helping hand by telling you where you can get the best deals on netbooks and accessories, either new, refurbished or used.

First of all, there's this section on the site where I gather the best deals I find online, a couple of times a month. Most of those deals are only available for a limited amount of time (most just for 1 or 2 days), so you should subscribe to my RSS feed to keep updated with the latest posts (this way you won't miss anything important).

Then, there are a couple of **big and trustworthy websites** that offer good deals for these devices, and you can find some of the ones I use and recommend below:

Amazon - Amazon has good prices on almost any kind of products. Actually, it's quite hard to find better prices than the ones they offer. There are lots of netbooks and accessories in there, with interesting price cuts and you can get even bigger discounts if you buy bundles (like a netbook + a case + a sleeve). Also, the store offers reviews for the products they sell from previous buyers, so you can easily see if the product is worth it or not.

<u>Buy.com</u> - Another big online store in US. Doesn't have as many products as Amazon, but prices for the ones available are similar. And from time to time, you might even get special price offers only available for a couple of hours or days on some products and accessories.

<u>Newegg</u> - The ultimate source of hardware and electronic accessories. Their prices on netbooks might not be as good as the ones on Amazon and Buy.com, but **you can get upgrade parts and accessories for peanuts if you get lucky**, as there are many short time deals available here. Also, they do **tend to get new products faster** than the other big online stores.

<u>Refurbished Depot</u> - here you can find factory refurbished and restored products for very good prices. You will find some netbooks and even some laptops cheaper than anywhere else, but warranty on these products usually goes for only 3 to 6 months.

<u>eBay.com</u> - here you can find almost anything, mainly used netbooks and accessories, but also some deals on new and refurbished devices from time to time. You just **have to be patient and search through all the crappy ads to get the good deals**.

All of these stores above (but Ebay) offer money back guarantee policies, reviews for the products from previous buyers, free shipping (for some devices), special prices on bundles, etc.

That's why I'd advise you to check out their offers and if you can't find there what you're looking for, then <u>send me a message</u> and I'll try to give you a helping hand.

Also, you might have noticed that all the above webstores are from the States and mostly only ship there. I'm sorry but it's impossible for me to advice you guys on the best online shops in each of your own countries. However, I do recommend Amazon all around the globe (for Canada, UK, Germany). Besides that, you're on your own here...

7. What the future holds in store for the netbooks segment?

Two years ago netbooks didn't even exist. A lot has changed since then, and like I told you before, 20% of the portable laptops sold these days are netbooks. **These small devices managed to become so popular so fast,** and that's because they are able to satisfy the needs of those looking for a portable laptop, that can run regular every-day applications and comes with a decent price tag.

I do believe this is only the beginning for netbooks. They managed to succeed in developed markets like US and Europe. In the future, they'll bring many more features for the customers in these zones (along with yet better prices) and also they will try to reach emerging countries in Asia and Africa, where there are billions of potential buyers.

Also, it seems that netbooks evolved during the last 2 years only by getting bigger and closer to laptops. That's why I'm curious to see where the line will be drawn. I for one believe 10" netbooks will still remain the most popular, at least in the near future, with 11 to 13 devices creating a new class, the so called laptop-replacements.

For the rest of 2010, expect an explosion of touch-enabled netbooks and tablets. We're looking for easier ways to solve out daily tasks and touch-displays are one of the means to achieve this. They've been around for some time, but not they finally became affordable, so expect hundreds of cool products and technology to evolve in this domain by the end of 2010 and early in 2011.

Also, look forward to more powerful standard netbooks with better design, features and performances, while being able to raise autonomy even more and hopefully keep prices around the \$350 margin.

8. Is this a good moment to buy a netbook?

If this is the proper moment to buy a netbook or not is only up to you to decide. It's true technology evolves quickly in this domain, but it's the same for laptops and any other kind of electronic devices.

So, there's no point in waiting a couple of months for something better to enter the market, because at that point, something even better would have been announced. **This way you might never get what you want**:) .

My sister for example is a Med-School student and in October 2009 she got a new 10" device (an Asus 1005HA). At the moment I knew more powerful devices were planned to enter the market in just a couple of months, but this 10 incher offered just enough for what she wants. So, there would have been no point in waiting a couple of months to get something better, with extra features that she wouldn't even have used, when she needed the device at that time.

And by the way, she was very satisfied with the choice and she still has it today.

Thus, just analyze your needs and try to find the best portable device that could meet them, while offering an as good as possible price/quality rapport. If you manage to find one, just go for it. It's that simple.

Final words - conclusion

In the end, I have to thank you for baring with me in this guide. I wanted it to be quick; it ended spreading on quite a couple of pages (and will get even better with future updates). This always happens to me \odot .

I do hope it was useful though and you managed to learn what you needed to know about netbooks and also managed to find the desired products for the desired prices.

I know that so many things happen in this domain almost every day, so I'll update this eBook with extra info every couple of months, so all the advices will be fresh and useful for you folks.

Of course, if you want to stay in touch with the latest subjects about netbooks, you should visit http://www.netbooklive.net and also subscribe to the RSS feed if you haven't already.

And also, if you have anything to ask or have any complaints about the info presented here, feel free to contact me and I'll get back to you as soon as I can.

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That's it for now; I must once again thank you for your time and wish you happy netbook hunting!

Andrei