
Subject: Dual or Quad Core?

Posted by [MexPirate](#) on Thu, 11 Sep 2008 15:47:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

As the topic title says - having a hard time choosing between a 3.16ghz Dual Core or the 2.4ghz Quad core Intel processor at the moment (both are basically the same price)

Currently leaning slightly towards the Dual core but interested to know which other people would choose and why.

Also considering a Geforce 9600GT 1gb- the GTX+ 512mb is an option but I believe that this has a higher power requirement meaning I may have to shell out more on the PSU as well as around £20 for the card - any thoughts about GFX cards appreciated although im keen to stick with Geforce and I am obviously on a budget.

Subject: Re: Dual or Quad Core?

Posted by [Drkpwn3r](#) on Thu, 11 Sep 2008 18:49:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

I'd probably go with the slower quad core (specifically if you use Vista). I've personally got a Dual Core processor stock @ 2.5GHz but stable overclocked @ 2.8GHz, and I'm pretty sure a slower quad core would far outperform my processor even though I may have a higher clock.

You have to consider this when buying processors these days: clocks should never be your primary consideration when buying multi-core processors. Why? Because quite simply, the actual performance you're most likely to get out of the processor is the core count multiplied by the processor's displayed speed.

So to put it simply: my 2.8GHz outputs a maximum effective performance of 5.6GHz (granted applications take advantage of it), even though it's officially rated at 2.8GHz stable.

Subject: Re: Dual or Quad Core?

Posted by [Goztow](#) on Thu, 11 Sep 2008 20:59:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

If you plan to game: dual. If you plan to multitask a LOT (I mean burning cd's while rendering video while ...): quad.

Games won't be using all 4 cores for quite some time so u're better off with the dual faster cores IMO.

Subject: Re: Dual or Quad Core?

Posted by [DarkDemin](#) on Thu, 11 Sep 2008 22:25:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

Goztow wrote on Thu, 11 September 2008 16:59 If you plan to game: dual. If you plan to multitask a LOT (I mean bruning cd's while rendering video while ...): quad.

Games won't be using all 4 cores for quite some time so u're better off with the dual faster cores IMO.

Crysis is the only game that I know supports quad core processors.

Subject: Re: Dual or Quad Core?

Posted by [mrpirate](#) on Thu, 11 Sep 2008 22:46:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

Drkpwn3r wrote on Thu, 11 September 2008 14:49 Why? Because quite simply, the actual performance you're most likely to get out of the processor is the core count multiplied by the processor's displayed speed.

So to put it simply: my 2.8GHz outputs a maximum effective performance of 5.6GHz (granted applications take advantage of it), even though it's officially rated at 2.8GHz stable.

WRONG

I'd go with the dual core

Subject: Re: Dual or Quad Core?

Posted by [nikki6ixx](#) on Thu, 11 Sep 2008 23:08:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

I'd spring for the dual core.

Later on, when multi-core processing is popular, and mainstream, you can grab a quad-core or whatever, and it'll be faster, and cheaper.

Subject: Re: Dual or Quad Core?

Posted by [Romaner](#) on Thu, 11 Sep 2008 23:57:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

if i were you i would buy a mobo that can support quad core. but put a dual core into it just like the rest of the folks said. i think supreme commander takes advantage of multiple cores, and crysis not sure about mass effect.

that way you can get a quad later on but for now dual would be sufficient for pretty much anything.

also i would go with ATI over Nvidia. yes i have had a personal bad experience myself with nvidia, but even if i disregard that, look at the specs of 4870 even the 512mb, its cheaper and just as good as gtx 260

<http://www.tomshardware.com/forum/254328-33-4870>

Subject: Re: Dual or Quad Core?

Posted by [MexPirate](#) on Fri, 12 Sep 2008 01:03:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

interesting you should mention those two games - crysis and supreme commander, they were both used in benchmark tests that mirror exactly what Gozy is saying, the Quad core processor stomped all over the Dual in rendering and encoding - neither of which will be any use to me. On both games though the 3.16 dual came well above the 2.4 quad. Link here:

<http://www.techarp.com/showarticle.aspx?artno=499&pgno=5>

Was just interested to see if people had other ideas or experiences but seems that the dual core will be better value

EDIT:(looking at the E8500 & the Q6600 btw)

These are the specs of the machine im looking at from cyberpower - this is with a 550W PSU (enough u think?), 64bit vista, G15 Keyboard, Headset and Liquid CPU cooling - comments appreciated

Subject: Re: Dual or Quad Core?

Posted by [IronWarrior](#) on Fri, 12 Sep 2008 02:49:39 GMT

[View Forum Message](#) <> [Reply to Message](#)

Go for the Quad and overclock it to like 5GHz.

Subject: Re: Dual or Quad Core?

Posted by [luv2pb](#) on Fri, 12 Sep 2008 04:44:26 GMT

[View Forum Message](#) <> [Reply to Message](#)

quad core is win. I love mine (2.4gb that i overclock to 3.0gb) and it is the best bang for your buck.

Subject: Re: Dual or Quad Core?

Posted by [Goztow](#) on Fri, 12 Sep 2008 08:30:21 GMT

I agree with whoever said: buy a quad core capable motherboard and only put two cores in it for now.

Subject: Re: Dual or Quad Core?

Posted by [Chuck Norris](#) on Fri, 12 Sep 2008 15:28:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

E8500 > Q6600

1. The E8500 is faster at 3.16Ghz vs the Q6600 at 2.4GHz.
2. A dual core will generally overclock further (if you do this). An E8500 will get you, almost guaranteed, to at least 4GHz on air.
3. A dual core will use less power.
4. A dual core will make less heat.
5. A dual core will put less strain on the motherboard/Northbridge (really only important if overclocking).
6. The E8500 is 45nm versus the Q6600 being 65nm. The biggest point to this is that the E8500 is faster clock for clock (~10%), on top of already being faster by default. This means, for example, that an E8500 even at 2.4GHz would be ~10% faster than the Q6600, so add to that the faster speed it has by default and it's quite faster. Other points to being 45nm include SSE4.1 and more L2 cache (games love it). Yes, I'm aware the Q6600 has 8MB in all, but it's really 2x4MB (since it's not true quad core but rather two dual cores). In other words, they share cache per 2 cores, so you can say either the E8500 has 6MB per two cores versus the Q6600 with 4MB per 2 cores, or you can say it's 3MB per core (E8500) versus 2MB per core (Q6600).
7. The software world doesn't take advantage of quad cores CPUs really much at all. Not even 3/4 of the software out there take advantage of a dual core as it is. So, yeah, you have two extra cores, but they're kind of useless, and then there's all these pros for dual core CPUs. I know which one I'm choosing.

You've got to love marketing and the more is better mentality they get to you with to take your money. Unless you're an insane multitasker (don't kid yourself), a fast dual core CPU is all any normal user will need. The rest is waste, and you also forgo all of the pros of th E8500 versus the Q6600.

Oh, and no, future proofing doesn't count for two reasons. 1. There's no such thing. 2. By time quad cores become needed (long, long ways off), both the E8500 and Q6600 will be obsolete anyway.

As for the rest of your system, it looks okay, but I'd get a motherboard with a P35 chipset if you

can. As for the PSU, 550 watts says nothing. What brand and model is it? If it's a good quality PSU, 550 watts is enough, but if it's not a good brand, it's a gamble.

Subject: Re: Dual or Quad Core?

Posted by [Romaner](#) on Fri, 12 Sep 2008 17:12:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

Goztow wrote on Fri, 12 September 2008 02:30l agree with whoever said: buy a quad core capable motherboard and only put two cores in it for now.

that was me, and i said that because this is exactly what i did when i built my machine back in january, so personal experience

now as for psu of 550w just like chuck said, if its a brand like antec you should be ok... but if its some unknown shitty brand you might be screwed. but if you are planning on going sli or crossfire (adding a second vid card into your rig) then you should look into 650w.

thats just my suggestion.

because later on you might want a better cpu and max your mobo out on ram... plus get the other vid card and then your 550w might not power all that for you.

Subject: Re: Dual or Quad Core?

Posted by [MexPirate](#) on Fri, 12 Sep 2008 19:01:21 GMT

[View Forum Message](#) <> [Reply to Message](#)

Thanks for all the input guys, much appreciated - with regards to the PSU - I don't think I will ever bother to use the SLI - my current machine has that option but from what I have seen the improvement from the second card is often minimal at best. The PSU is: LC Silent Giant 550W Power Supply 140mm FAN, some details here:

http://www.hardware.info/en-US/productdb/bGNkZ5iZmJPK/viewproduct/LC_Power_Silent_Giant_550W/

The next option for an extra £10 is: Hiper Type-M SLI/Crossfire Ready 580 Watt Power Supply, details here: <http://www.hipergroup.com/products.php?lv=4&cate=1&type=7&pid=15&action=Specification>

Cyberpower reckon that anything 500W+ should be sufficient for the GFX card I am looking at, but always like to get a second opinion, their recommendations here:

<http://www.cyberpowersystem.co.uk/landingpages/psuguide/default.asp>

I like the idea of a "silent" PSU as my current one is a bit noisy and has developed an occasional rattle which pisses me off immensely. Have also come accross seperate VGA power supplies that are supposed to take the load off the main PSU, so that could always be an option if I decided to opt for a GFX upgrade in the future.

Any suggestions people may have for other retailers in the UK that offer customisable gaming rigs - ideally offering finance as well so I can spread the payments would be appreciated.

I must admit I'm not hot on the chipsets and exactly what they mean - this is an option (only an extra £6) MSI P35 Neo-F P35 Chipset LGA775 Supports Core 2 Duo CPU FSB1333 DDR2/800 Mainboard w/GbLAN,USB2.0,&7.1Audio. Just wondering if you could explain the advantage of the P35 chipset and is it worth losing the Quad support to get it?

Subject: Re: Dual or Quad Core?

Posted by [Speedy059](#) on Fri, 12 Sep 2008 22:44:42 GMT

[View Forum Message](#) <> [Reply to Message](#)

Ya...do whatever one is suggesting. Buy the dual core instead of the QuadCore. Why drive a Ferrari (QuadCore) when you can drive a Honda Civic (Dual Core)....?

Subject: Re: Dual or Quad Core?

Posted by [sadukar09](#) on Fri, 12 Sep 2008 22:58:09 GMT

[View Forum Message](#) <> [Reply to Message](#)

Speedy059 wrote on Fri, 12 September 2008 17:44Ya...do whatever one is suggesting. Buy the dual core instead of the QuadCore. Why drive a Ferrari (QuadCore) when you can drive a Honda Civic (Dual Core)....?

Well, it's more like comparing a 2004 Mustang to a 2008 Civic.

Subject: Re: Dual or Quad Core?

Posted by [Homey](#) on Sat, 13 Sep 2008 06:13:29 GMT

[View Forum Message](#) <> [Reply to Message](#)

Chuck Norris wrote on Fri, 12 September 2008 11:28E8500 > Q6600

1. The E8500 is faster at 3.16Ghz vs the Q6600 at 2.4GHz.
2. A dual core will generally overclock further (if you do this). An E8500 will get you, almost guaranteed, to at least 4GHz on air.
3. A dual core will use less power.
4. A dual core will make less heat.
5. A dual core will put less strain on the motherboard/Northbridge (really only important if overclocking).
6. The E8500 is 45nm versus the Q6600 being 65nm. The biggest point to this is that the E8500 is faster clock for clock (~10%), on top of already being faster by default. This means, for example,

that an E8500 even at 2.4GHz would be ~10% faster than the Q6600, so add to that the faster speed it has by default and it's quite faster. Other points to being 45nm include SSE4.1 and more L2 cache (games love it). Yes, I'm aware the Q6600 has 8MB in all, but it's really 2x4MB (since it's not true quad core but rather two dual cores). In other words, they share cache per 2 cores, so you can say either the E8500 has 6MB per two cores versus the Q6600 with 4MB per 2 cores, or you can say it's 3MB per core (E8500) versus 2MB per core (Q6600).

7. The software world doesn't take advantage of quad cores CPUs really much at all. Not even 3/4 of the software out there take advantage of a dual core as it is. So, yeah, you have two extra cores, but they're kind of useless, and then there's all these pros for dual core CPUs. I know which one I'm choosing.

You've got to love marketing and the more is better mentality they get to you with to take your money. Unless you're an insane multitasker (don't kid yourself), a fast dual core CPU is all any normal user will need. The rest is waste, and you also forgo all of the pros of th E8500 versus the Q6600.

Oh, and no, future proofing doesn't count for two reasons. 1. There's no such thing. 2. By time quad cores become needed (long, long ways off), both the E8500 and Q6600 will be obsolete anyway.

As for the rest of your system, it looks okay, but I'd get a motherboard with a P35 chipset if you can. As for the PSU, 550 watts says nothing. What brand and model is it? If it's a good quality PSU, 550 watts is enough, but if it's not a good brand, it's a gamble.

Couldn't agree more. I'm ordering parts soon and getting the E8500 for sure.

Subject: Re: Dual or Quad Core?

Posted by [JPNOD](#) on Sat, 13 Sep 2008 20:22:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

Mexpirate What apps do you want to run on your system? (Main usage)?

How long should the system last before you buy a newpc/upgrade.

Also I don't see Mexpirate saying anywhere that he wants to overclock?.

Subject: Re: Dual or Quad Core?

Posted by [Chuck Norris](#) on Mon, 15 Sep 2008 06:26:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

Read this. I'd say for 99% of the people, 99% of the time, the dual-core CPU will give better results for the money spent.

<http://www.codinghorror.com/blog/archives/000942.html>

Also consider that the list of software used there also includes a lot of rendering and benchmark applications compared to what most people would use. Most of us will care more about games and general usage.

As for how long it'll last, nobody can predict the future, but by the time quad core CPUs are really NEEDED, both of these two CPUs (the E8500 and the Q6600) will be all but obsolete. Don't purchase a quad core CPU with the false hope of future proofing.

Edit: The P35 chipset does support quad core CPUs. That motherboard specifically may not, but the chipset does.

As for the PSU, don't judge one by its wattage rating. Of those you listed, none stand out as great, but the HIPER is probably the best (though I've heard as much bad as good about them). If you want a silent and quality PSU, I recommend PC Power and Cooling's Silencer line. I have the 610 watt variant and it has been silent all of the time for me.

Subject: Re: Dual or Quad Core?

Posted by [MexPirate](#) on Mon, 15 Sep 2008 12:15:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

I am limited in choice on the PSU as I want the complete system to be built by CyberPower and don't want to shell out a fortune on the PSU - this basically limits me to the two listed without spending more than I want to.

Predictably I will be using the PC mainly for gaming - WoW, odd bit of Renegade, Fallout 3 shortly (Can't wait!) and no doubt some other stuff in the future. Just finished my degree so probably won't ever even get round to installing office let alone using it, won't ever be encoding & rendering. Conclusion Dual core is win - that's decided xD

I will be getting the machine overclocked by CyberPower as I'm not confident enough to tweak it myself without fear of damaging something or pushing it too far. They claim the standard overclock offers 10-20% increase but how this will actually relate to the different components I'm not sure - didn't even realise until now that you can overclock RAM.

Roll on payday and my new dream machine xD

Subject: Re: Dual or Quad Core?

Posted by [Caveman](#) on Mon, 15 Sep 2008 13:01:18 GMT

[View Forum Message](#) <> [Reply to Message](#)

You can pretty much overclock anything...

I would have to agree with the dual core.. You can easily push it to around 4Ghz with a aircooler. I have seen reports on E6700 being pushed to 5Ghz with watercooling.

If you're only going for one GPU then you wont need a super powerful 1000w PSU. I have a Q6600, 2GB 800Mhz RAM, 1x 768MB 8800GTX on a 600w PSU so you should be good.

Subject: Re: Dual or Quad Core?
Posted by [jnz](#) on Mon, 15 Sep 2008 14:05:53 GMT
[View Forum Message](#) <> [Reply to Message](#)

Make sure you don't get a cheap PSU, all the ones I get (around £20) burn out after a few months.

Subject: Re: Dual or Quad Core?
Posted by [wittebolx](#) on Tue, 16 Sep 2008 12:04:12 GMT
[View Forum Message](#) <> [Reply to Message](#)

here is a nice solution, its the "Spider" platform from AMD.
its a cheap solution and as for the costs.. you wont reach €600
Antec Nine Hundred (Retail, Zwart, 200mm Fan)

AMD Phenom™ X4 Quad 9850 (Retail, Black Edition)

Asus Lion Square +PWM (Retail)

MSI K9A2 Platinum V2 (Retail, Sound, G-LAN, FW, SATAII RAID)

Seagate Barracuda 7200.11 (Bulk, ST3500320AS)

Sapphire HD3870 Toxic (Retail, TV-Out, 2x DVI, Crossfire)

OCZ StealthXStream (Retail, 2x PCIe)

OCZ 4 GB DDR2-800 Kit (OCZ2RPR800C44GK, Reaper HPC)

im running the CPU at 4x2800 and its stable.
my 3dmark06 score is allways above 12000