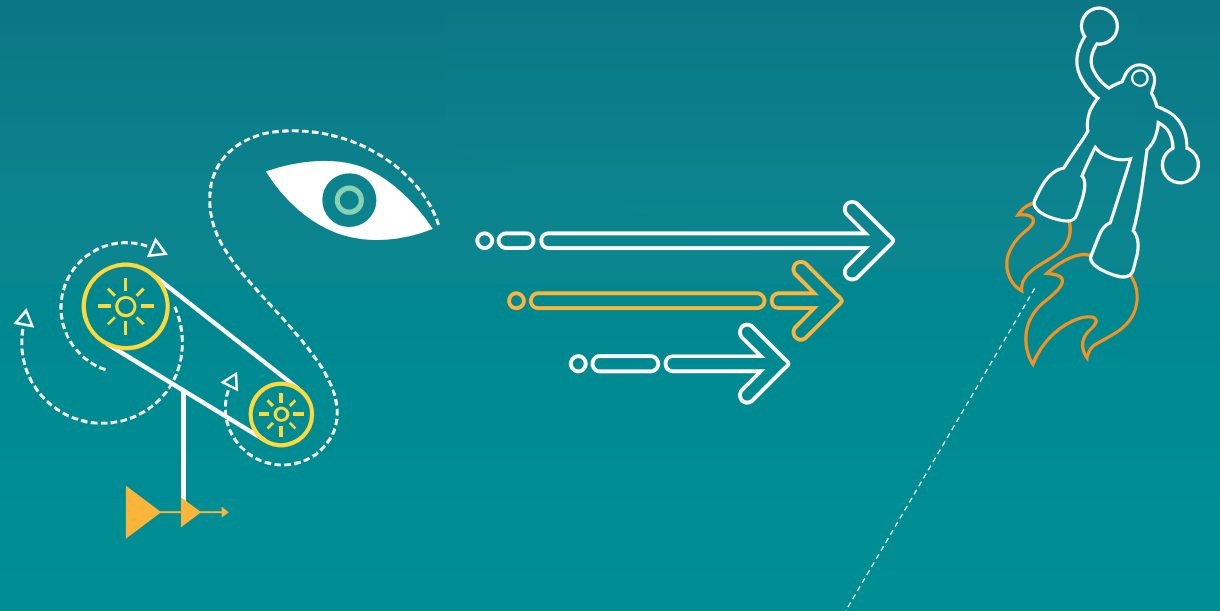
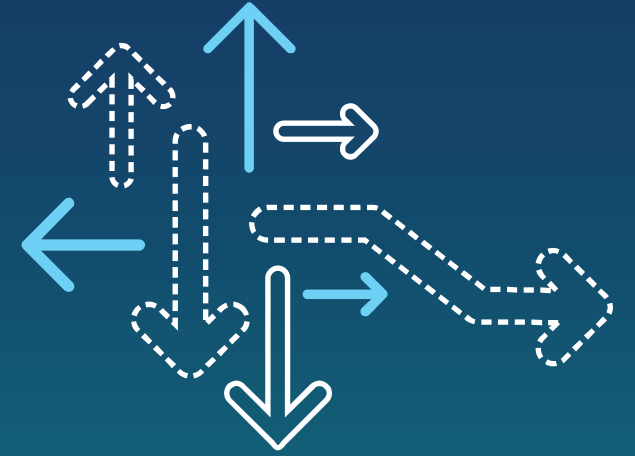


Sept 2013

Qualcomm® Snapdragon™ Benchmark Report



Qualcomm® Snapdragon™ 800



LG G2 - Overview

"LG's G2 features a quad-core Snapdragon 800 SoC (MSM8974). For a quick refresher, Snapdragon 800 features four Krait 400 cores running at up to 2.3GHz courtesy of TSMC's 28nm HPM process. The 2.3GHz max clock speed comes at a surprisingly low voltage thanks to the low power HPM process. Gone are the days of 1.4V to hit near-2GHz frequencies it seems, instead 8974 will hit 2.3 GHz at around 1V. Krait 400 improves L2 access latencies over Krait 300 (which is at the heart of Snapdragon 600 and S4 Pro) and is optimized for higher frequency operation, but Krait 400 is otherwise architecturally similar to Krait 300. Make no mistake, MSM8974 is the new high-end, pushing Snapdragon 600 and S4 Pro parts further down into midrange category. There are other SoC level enhancements as well, including things like a new version of the Hexagon DSP and obviously Adreno 330 vs. Adreno 320 (which I'll get to later)."

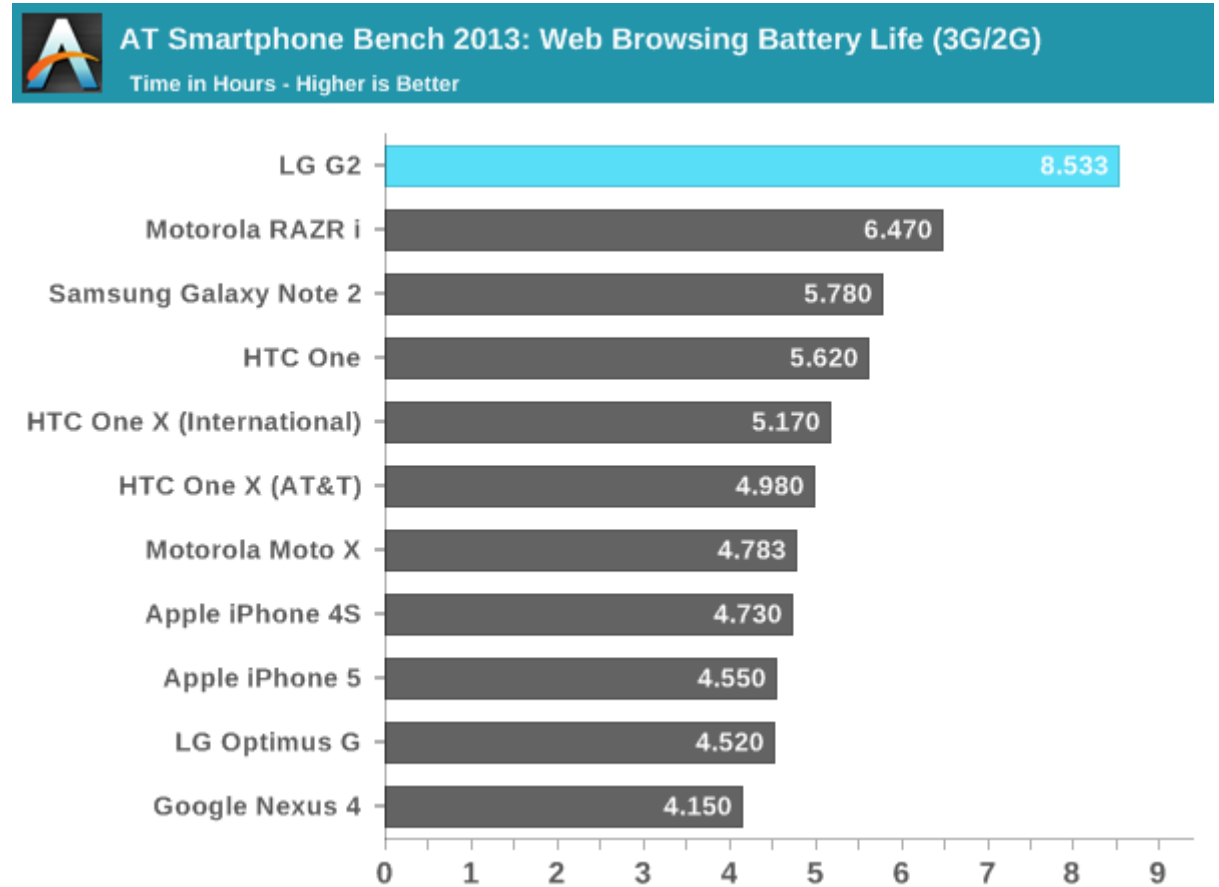
Sony Xperia Z Ultra
Snapdragon 800

6.4" display
6.5mm thin



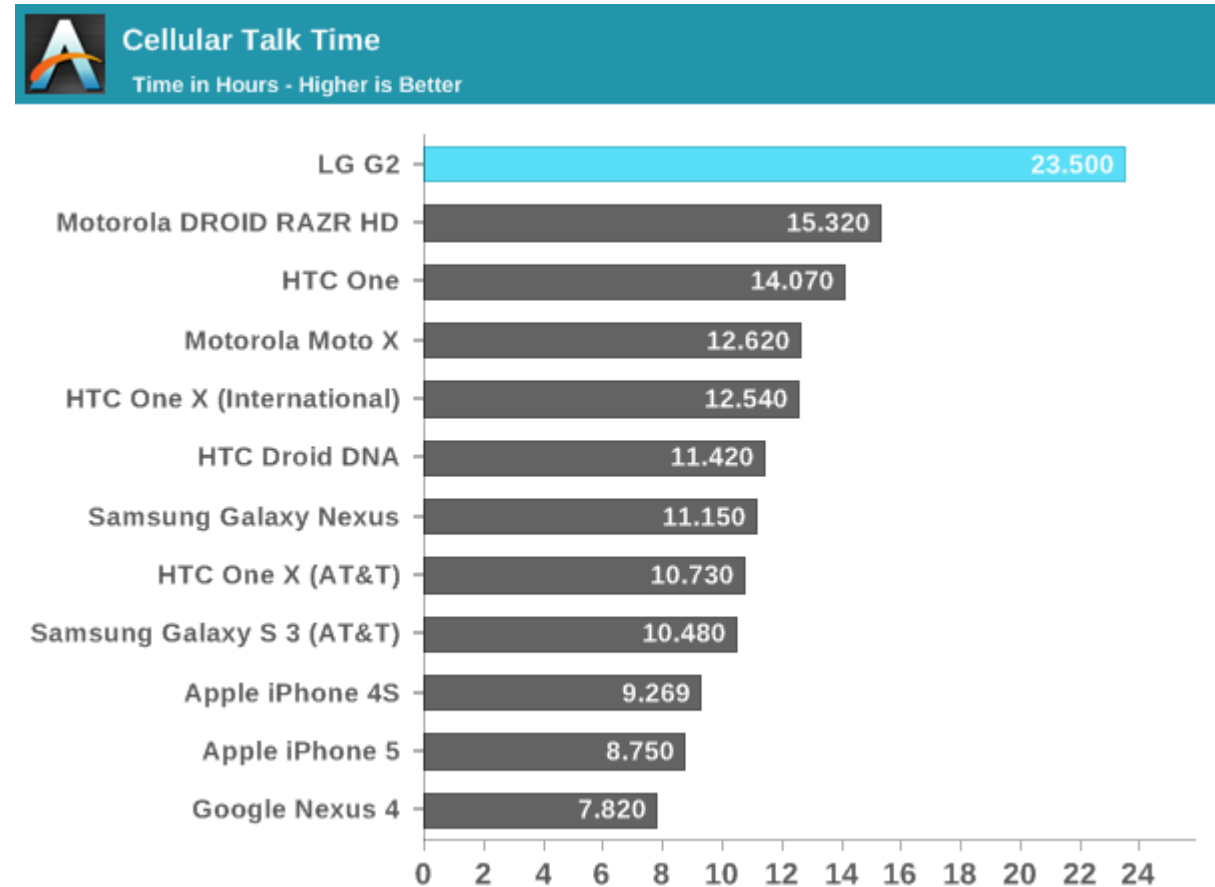
LG G2 – Battery Life

*“One of the things Qualcomm promised would come with **Snapdragon 800 (8974)** (and by extension the process improvement with 28nm HPM) was lower power consumption, especially versus Snapdragon 600 (8064). There are improvements throughout the overall Snapdragon 800 platform which help as well, **newer PMIC (PM8941)** and that **newer modem block** onboard as well, but **overall platform power goes down in the lower performance states for Snapdragon 800.**”*



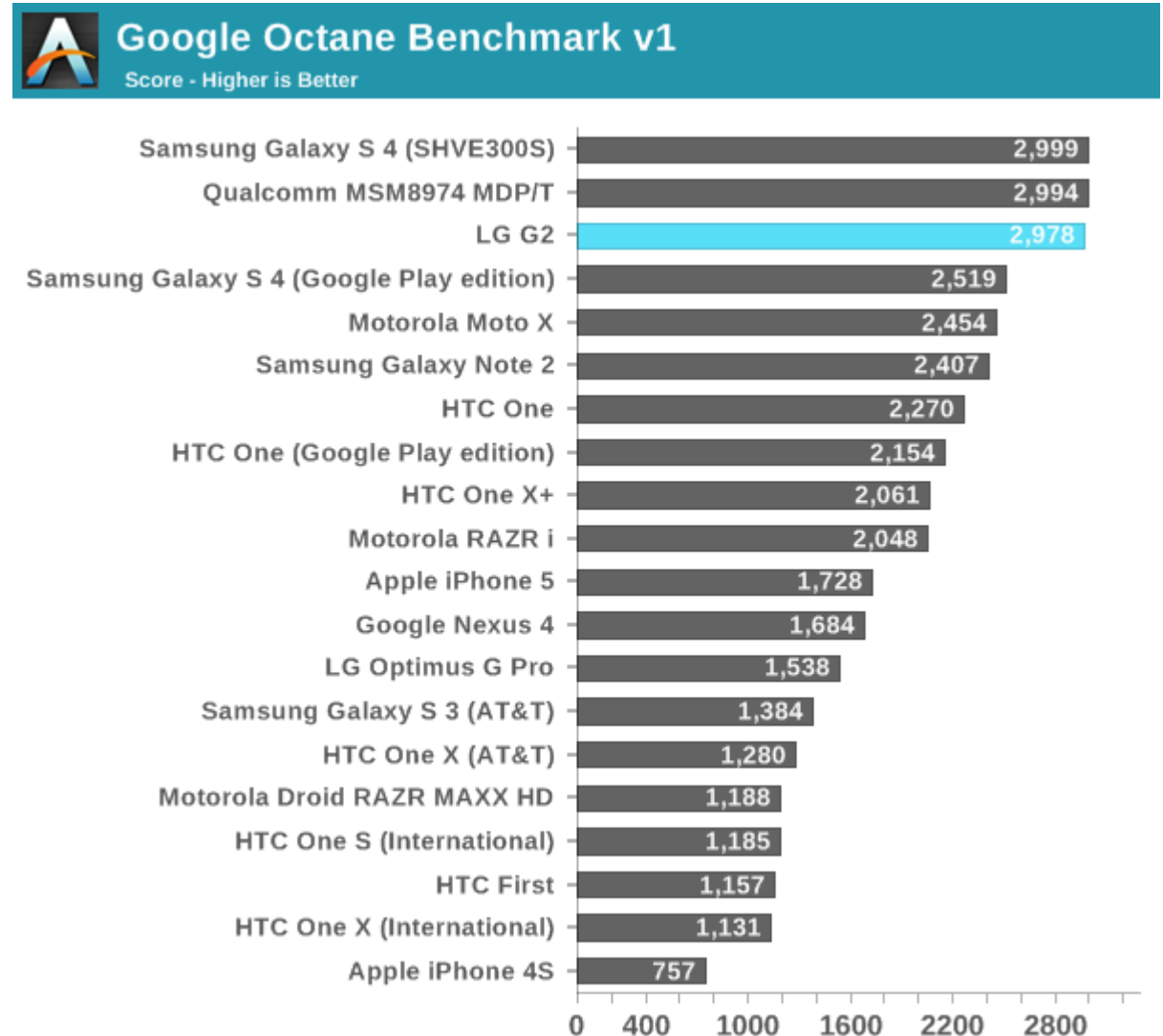
LG G2 – Battery Life

“The LG G2 battery life is shockingly good through our tests, and in subjective use. The combination of larger battery, GRAM for panel self refresh, new HK-MG process, and changes to the architecture dramatically improve things for the G2 over the Optimus G. While running the two web browsing tests I suspected that the G2 might be my first phone call test to break 24 hours, while it doesn't break it comes tantalizingly close at 23.5 hours. I'm very impressed with the G2 battery life.”



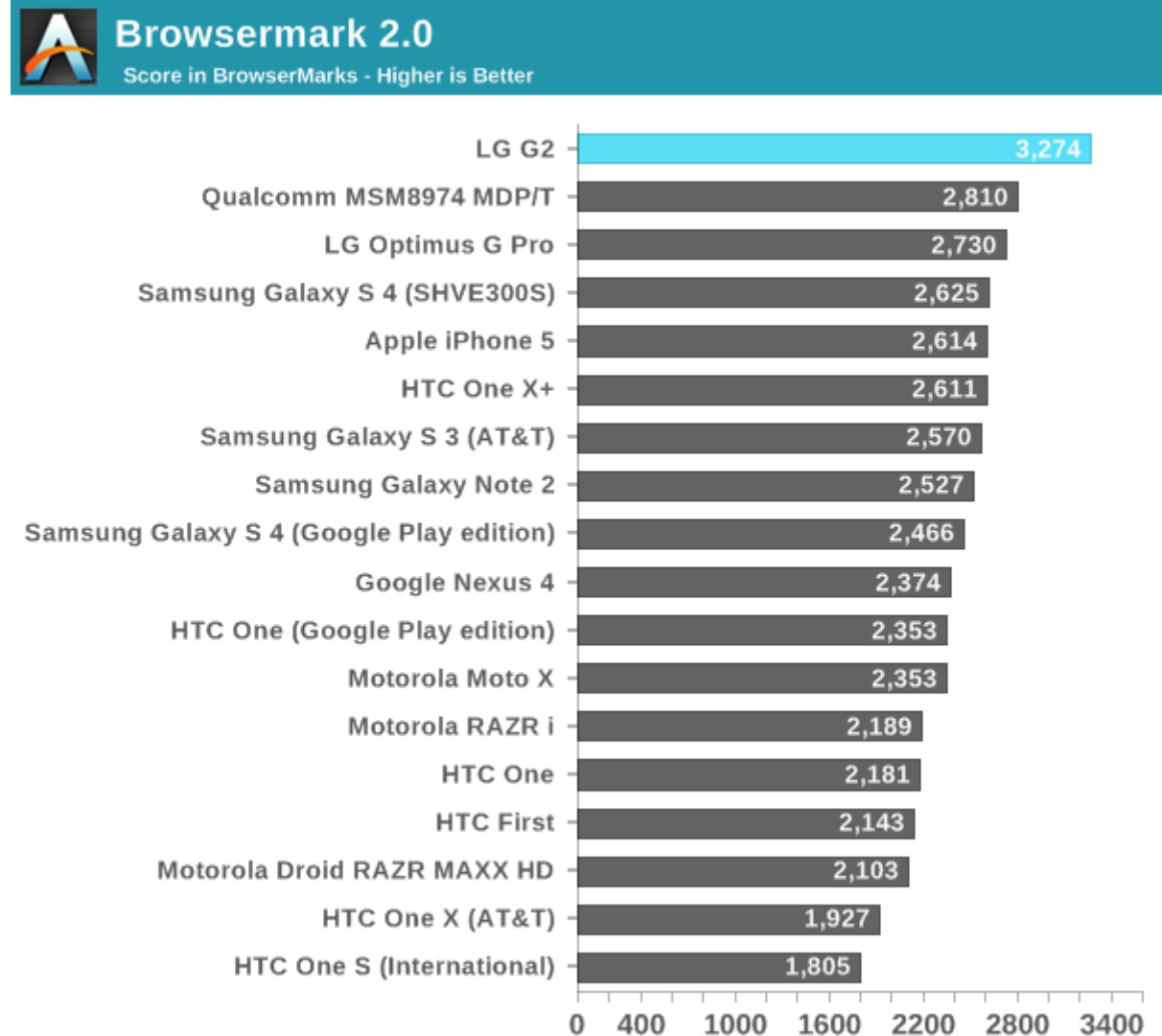
LG G2 – Web Browsing

“Octane is the first benchmark where we see the Snapdragon 800 flex its potential. Here the G2 not only ties the Snapdragon 800 MDP/T, but it also roughly equals the performance of the...Exynos 5 Octa. Ultimately that's the comparison that Qualcomm will be most interested in winning. If Snapdragon 800 can deliver better performance (or at least perf per watt) than the [Exynos 5], it'll be a definite win for Qualcomm.”



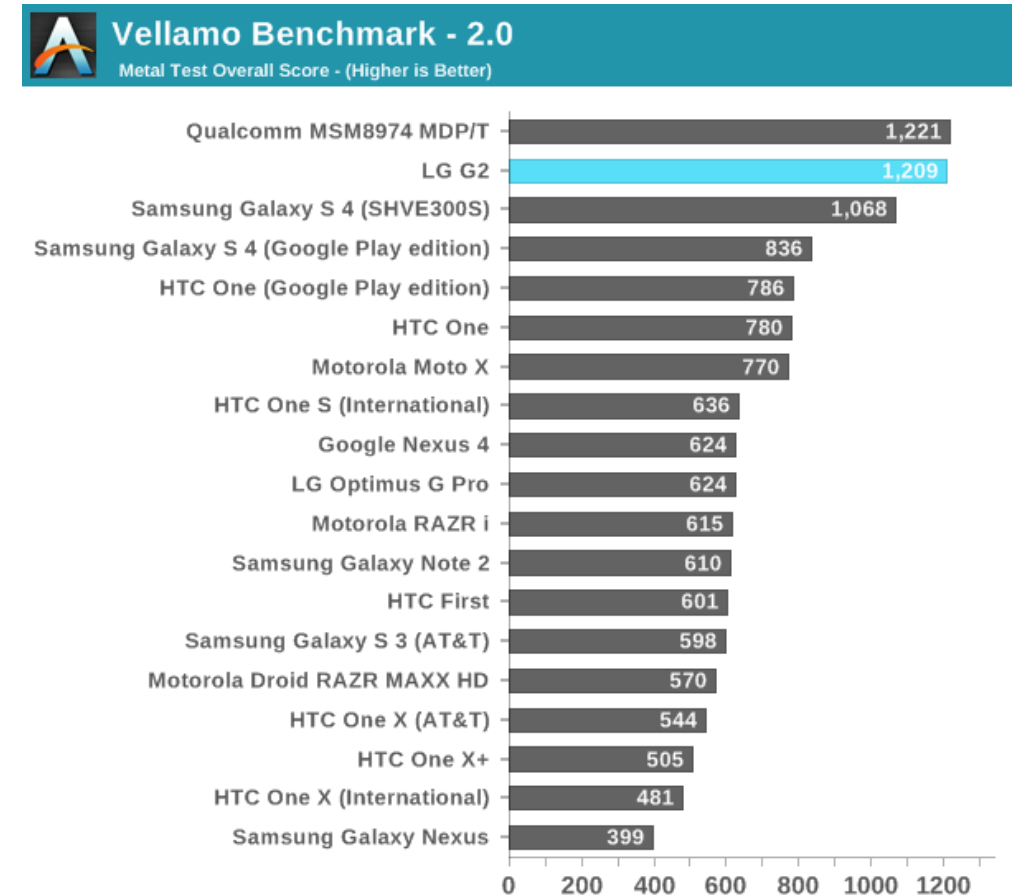
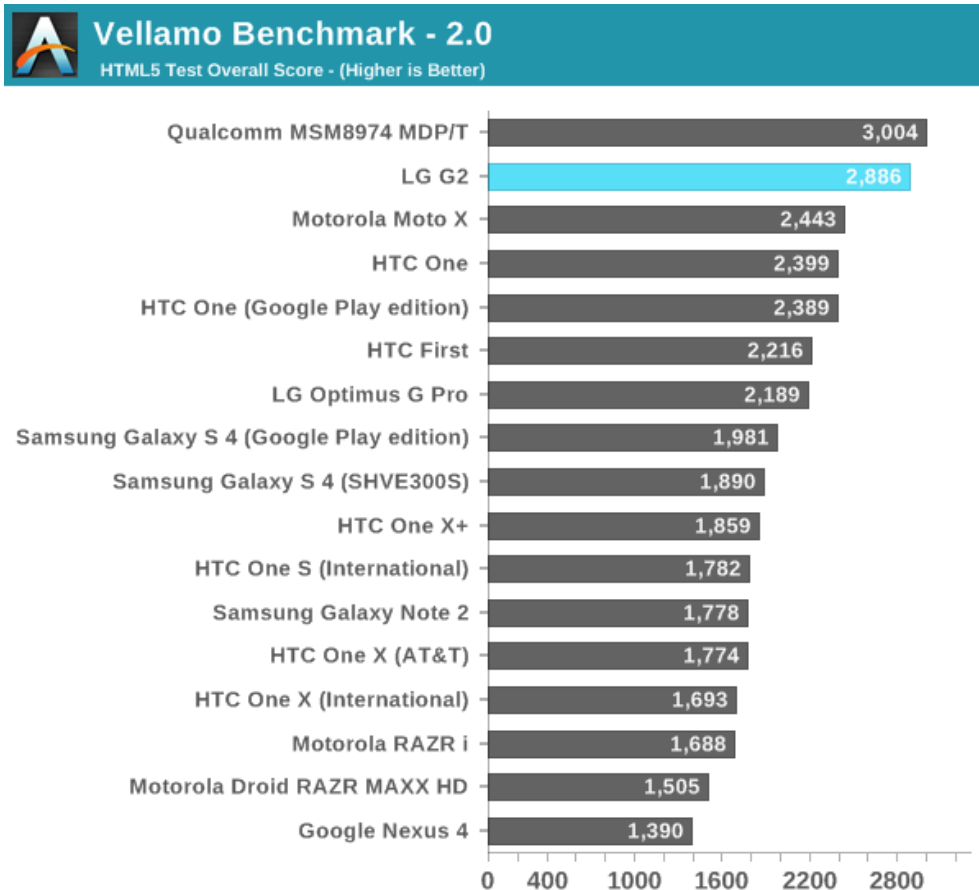
LG G2 - Web Browsing

“Browsermark 2.0 shows the G2 in the clear lead. Here LG was able to even outperform Qualcomm's own reference design by 16%. I suspect this has more to do with browser optimizations than anything else though, as the S600 based Optimus G Pro also does extremely well.”



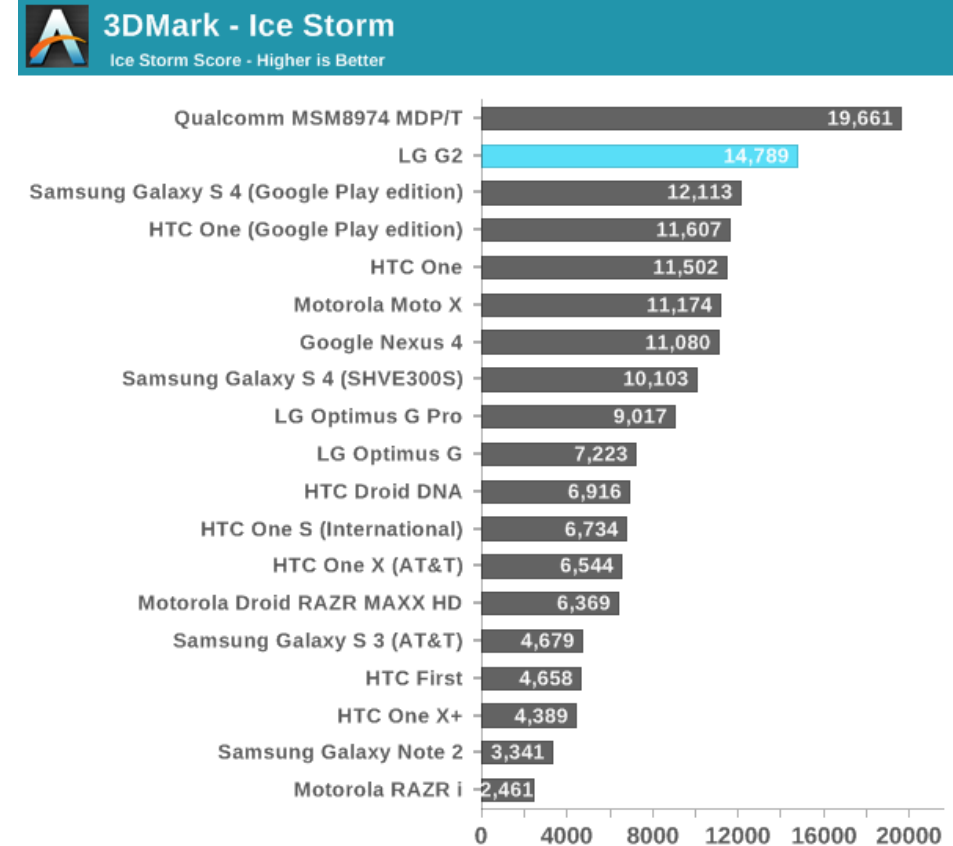
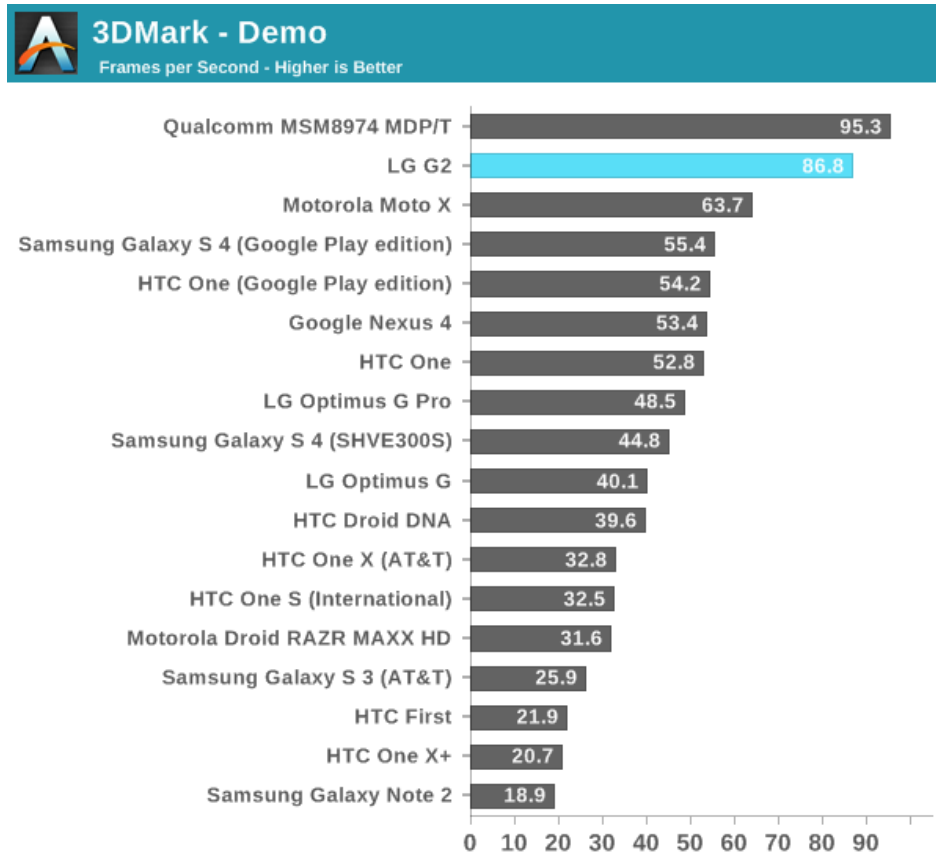
LG G2

“Both Vellamo tests put the G2 on par with Qualcomm's Snapdragon 800 MDP/T.”



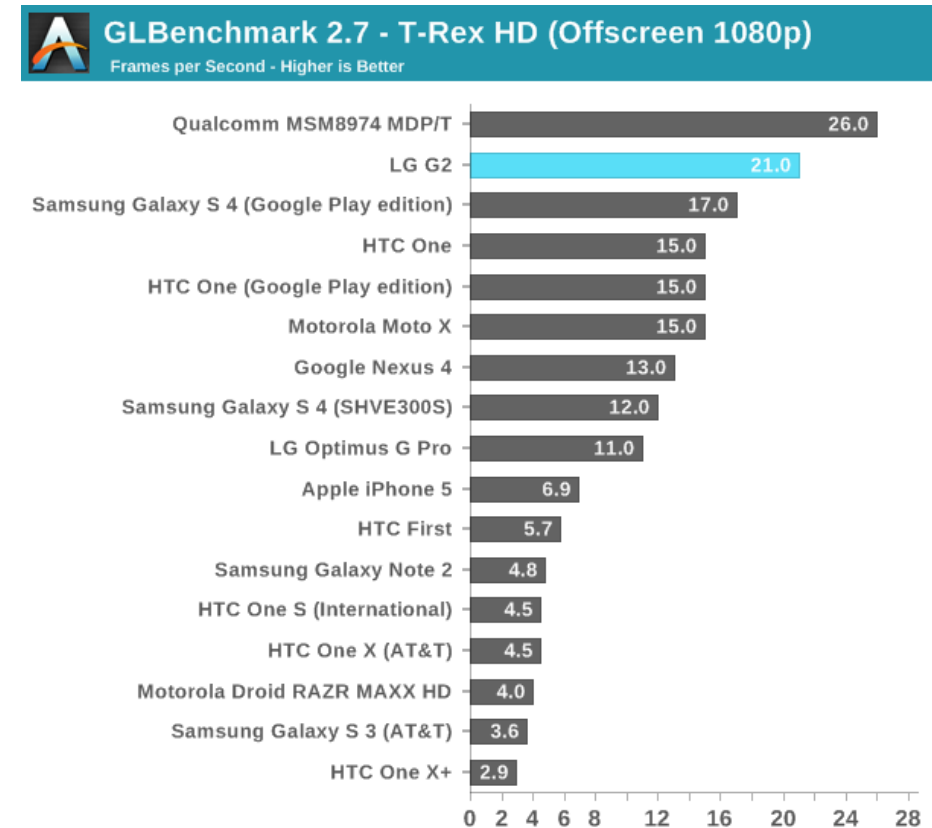
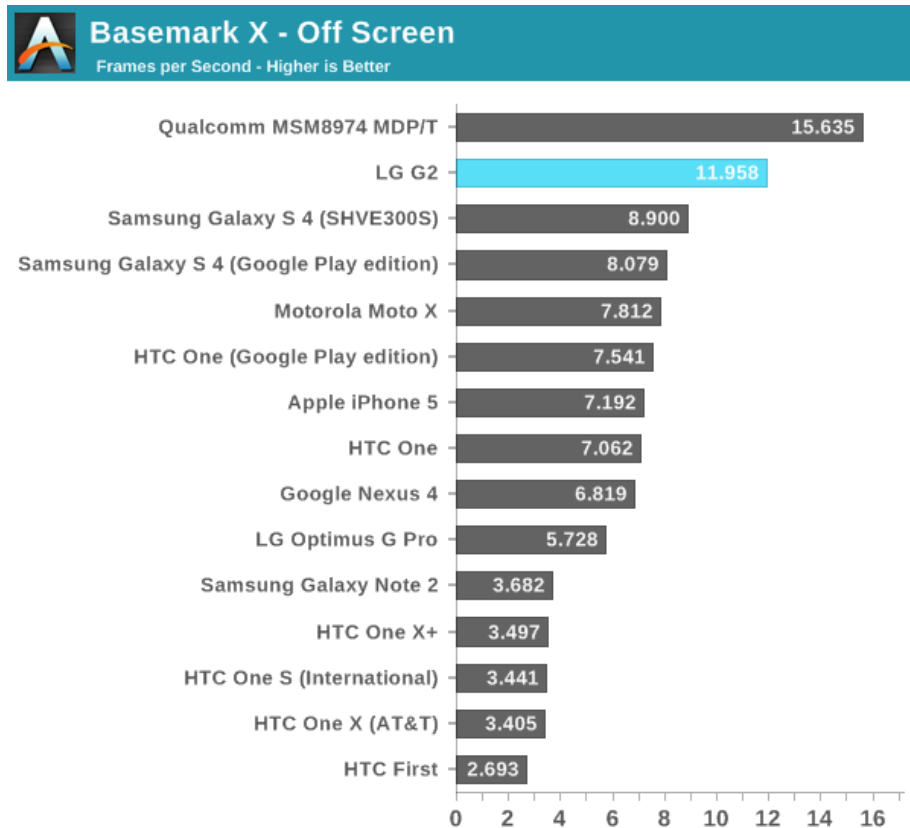
LG G2 - Graphics

3DMark performance generally fell very close to Qualcomm's MSM8974 MDP/T, with one exception... The performance gains elsewhere over Snapdragon 600/Adreno 320 are huge, but 3DMark can be very influenced by CPU performance so it's not clear how much of this advantage is due to Adreno 330 or Krait 400.



LG G2

“Basemark X performance tracks with what we saw in the GFXBench T-Rex HD test. Performance is clearly higher than on any other device, but not quite up to MDP/T levels. I wonder how much closer the final device will get.



LG G2 - Summary

"I've been using the G2 as my daily since getting it, and have been really quite impressed with the device. LG's battery size is large, and the battery life tests back up the subjectively long longevity that I've noticed. Obviously the process improvements from 28nm HPM and power saving features in the G2 like GRAM/PSR make an improvement here. It seems like with Snapdragon 800 we may be ushering in a new generation of battery performance, despite the lack of a traditional process node shrink. It just goes to show you that there can be benefits other than more performance from using a high-end phone. The G2 is the first device we've seen with 28nm HPM silicon inside, which Qualcomm will be on for while.

There are, of course, performance benefits to talk about as well. Qualcomm's Snapdragon 800 (MSM8974), delivers solid improvements relative to Snapdragon 600 (APQ8064T)."



Sony Xperia Z Ultra

"The Xperia Z Ultra is not only the biggest phone we've reviewed -- it's also theoretically the most powerful, because it's powered by a 2.15GHz quad-core Qualcomm MSM8974 SoC. The 28nm chipset's more popularly known as the Snapdragon 800, which is just now starting to make its way into the latest and greatest smartphones.

Without a doubt, the Snapdragon 800 delivers impressive results."

-- Brad Molen, Engadget



Sony Xperia Z Ultra



*“The Ultra exceeded our expectations for its JavaScript performance, as **its SunSpider browser score was the lowest we’ve ever seen on a smartphone.***

*...the **Adreno 330 and its graphics performance, this is the area in which the average user will likely experience the greatest gains.** We gave Riptide GP2 more than its fair share of testing in the last few days, and we **marveled at the amount of intricate details it was capable of pushing to the screen without any sense of lag or delay.** We also ran Epic Citadel and got similarly satisfactory results.”*

-- Brad Molen, Engadget

	Sony Xperia Z Ultra	Sony Xperia Z	
Benchmark	Snapdragon 800	Snapdragon S4 Pro	% Gain
Quadrant 2.0	18,966	8,019	237%
Vellamo 2.0	2,957	2,198	135%
AnTuTu 3.2	29,377	19,876	148%
SunSpider 1.0 (ms)	431	1,900	441%
GLBenchmark Egypt 2.7 HD Offscreen (fps)	23	13	177%
CF-Bench	31,702	16,079	197%

Sony Xperia Z Ultra

- “Ultimate performance with the **world’s fastest smartphone processor**”* -- Strategy Analytics
 - “The Xperia Z Ultra features the world’s fastest smartphone processor – the Qualcomm Snapdragon 800 processor with HD voice, that together with Sony’s audio Sony’s ClearAudio+ mode and Xloud loudness enhancement, delivers not just exceptional speed and performance, but also unsurpassed voice and audio quality.” -- Sony
- “The **world’s slimmest Full HD smartphone (6.5mm)**”* --Sony

Battery life	Battery (embedded)	3000 mAh
	Talk GSM	Up to 14 hours
	Standby GSM	Up to 790 hours
	Talk UMTS	Up to 16 hours
	Standby UMTS	Up to 820 hours
	Standby LTE	Up to 660 hours
	Music listening	Up to 120 hours (world’s longest audio playback)
	Video playback	Up to 7.5 hours



*Source: <http://www.sonymobile.com/testresults>

Press Release: http://blogs.sonymobile.com/press_release/the-new-xperia-z-ultra-the-worlds-slimmest-and-largest-full-hd-smartphone-display/

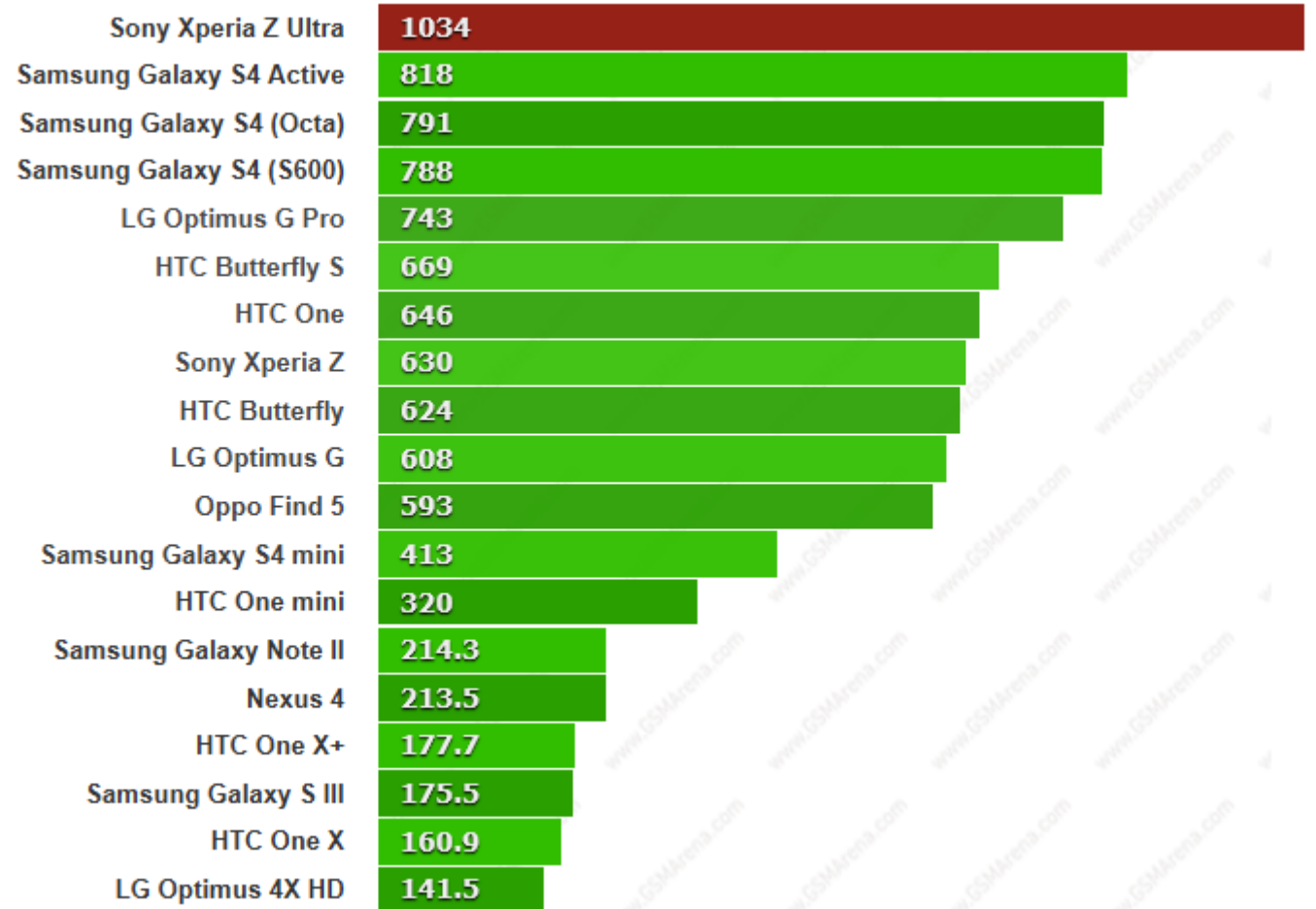
Sony Xperia Z Ultra

“The Sony Xperia Z Ultra is currently the fastest smartphone (phablets included) on the market right now. There's a noticeable performance lead over the Snapdragon 600 competitors and you can even feel the snappier chipset everywhere inside the Android OS running on the Xperia Z Ultra. Once you get your hands on the Z Ultra you immediately realize that there's some serious firepower under the hood..

It's a sexy piece of design and impressively powered, too. Four Krait 400 cores clocked way up to 2.2 GHz and 2 gigs of RAM on the Snapdragon 800 chipset will never leave you short on torque.”

-- GSMArena

Linpack



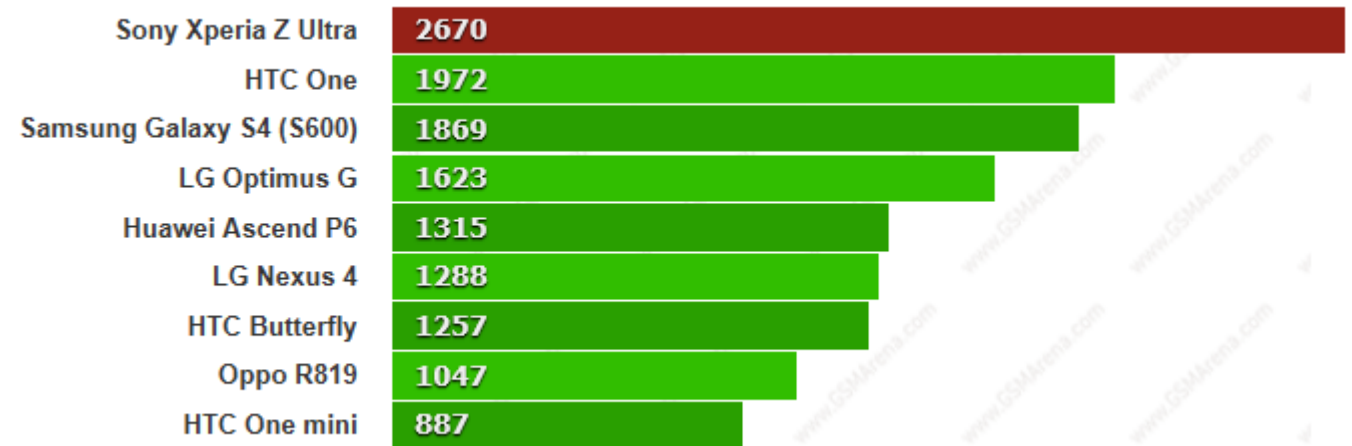
Sony Xperia Z Ultra

"Next, we are put all four cores to a test with the multi-core version of the Linpack benchmark. Sony Xperia Z Ultra didn't disappoint, [easily beating the Snapdragon 600 competition here](#)

[Sony Xperia Z Ultra is the champ in this chart as well outrunning the Galaxy S4 and the HTC One by a mile."](#)

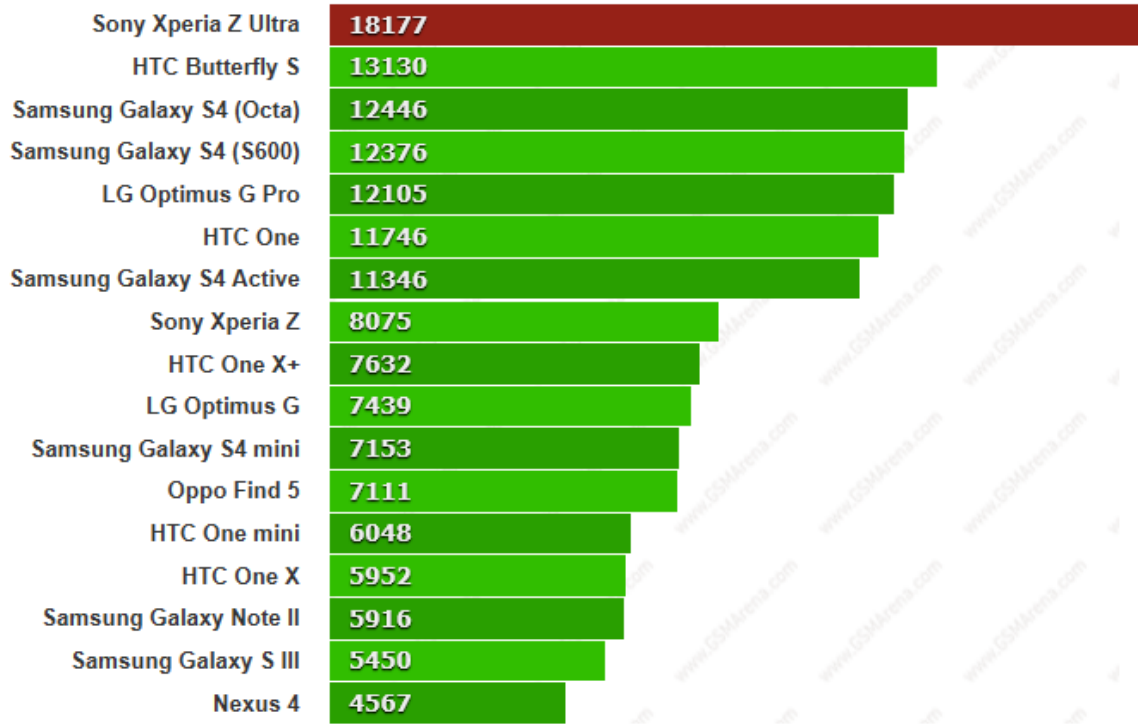
-- GSMArena

Geekbench 3

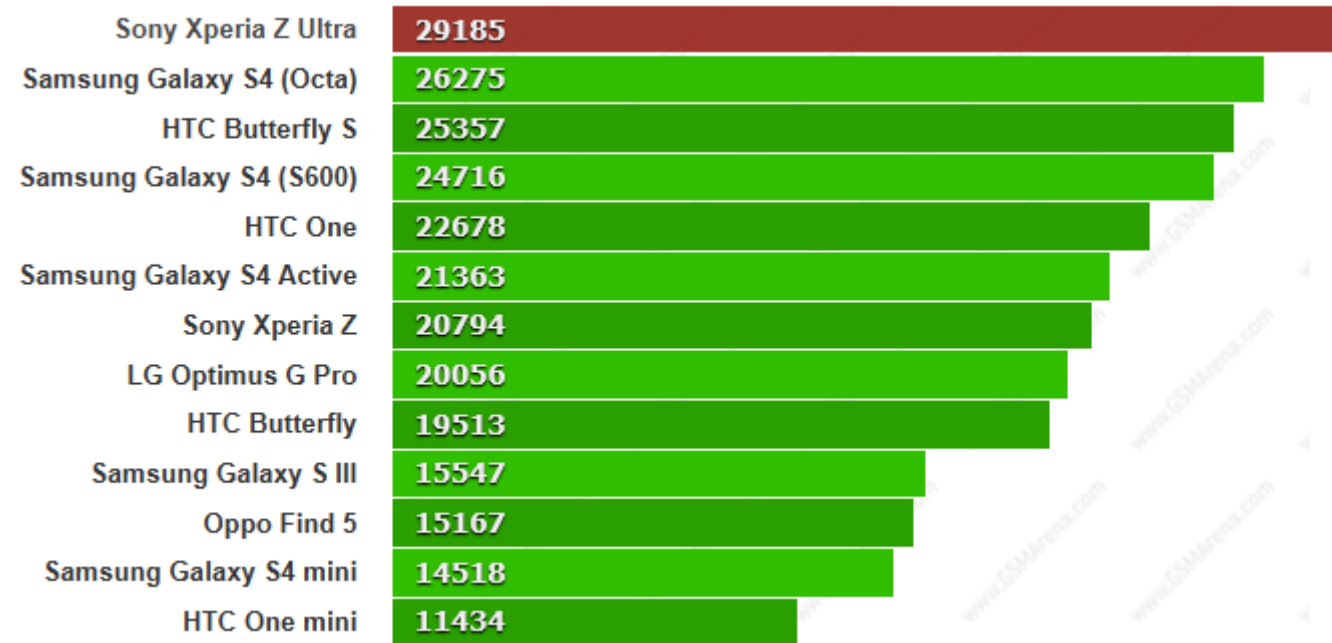


Sony Xperia Z Ultra

Quadrant



AnTuTu



*“Quadrant and AnTuTu evaluate the overall device performance instead of just the CPU, but the Sony Xperia Z Ultra and its **Snapdragon 800** chipset shine again.” -- GSMArena*

Sony Xperia Z Ultra

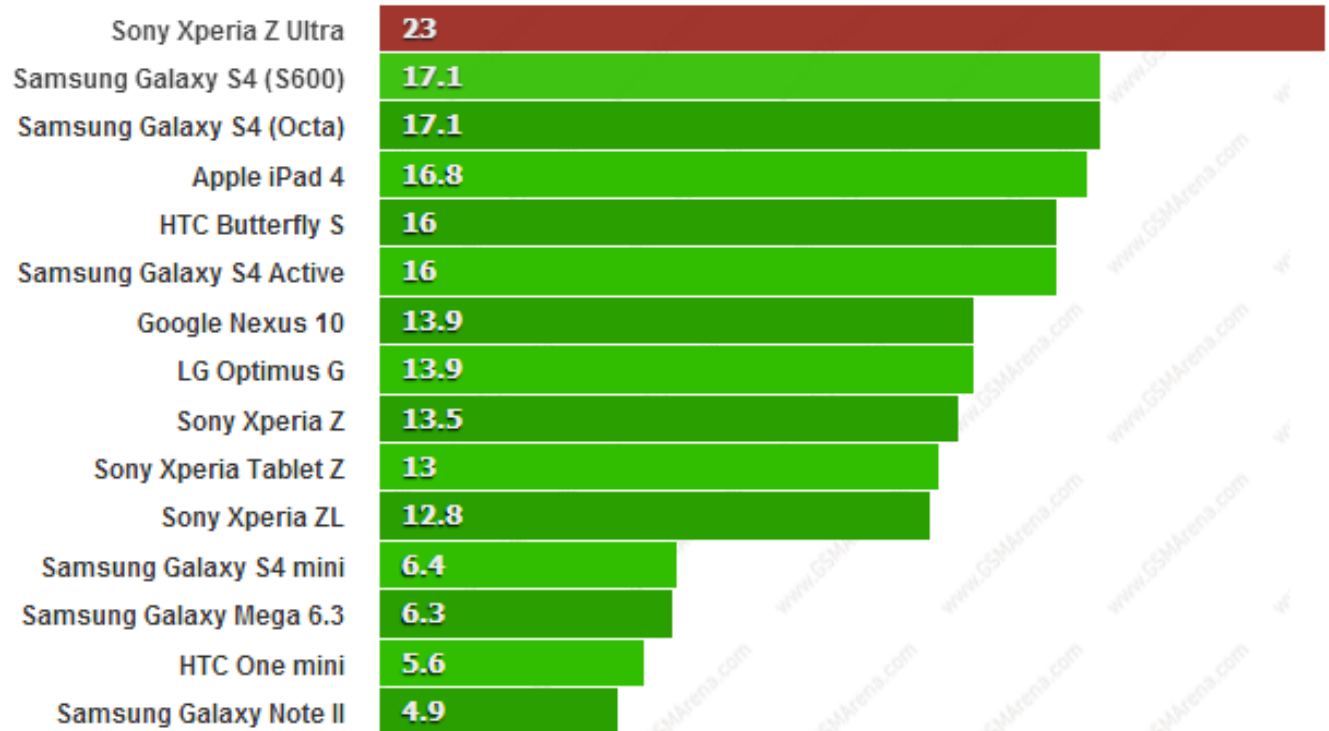
*"It's time to test the new **Adreno 330** graphic processing unit. We ran both of the GLBenchmark tests in offscreen mode, testing raw GPU power. The Xperia Z Ultra **easily outpaced all other phones we've tested so far.***

*By the way, the Adreno 330 GPU on the Xperia Z Ultra **supports OpenGL ES 3.0**, which was recently added to Android (with 4.3) that **promised even more impressive graphics.** It's reasonable to expect even better performance once Android 4.3 makes its way to this device.*

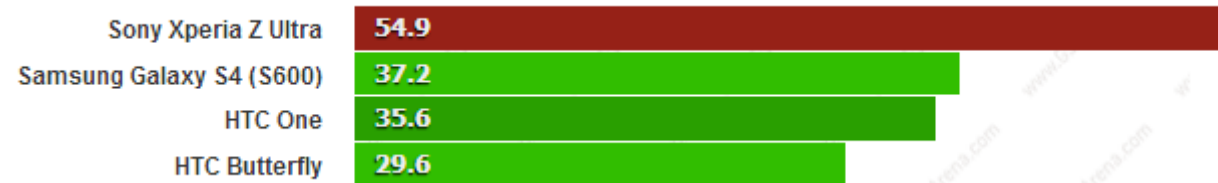
*The Epic Citadel benchmarks was also updated recently with new Ultra High Quality setting. We've rerun every 1080p device we had around and, as we expected, the **Xperia Z Ultra stole the first place once again.**"*

-- GSMArena

GLBenchmark 2.7 T-Rex (1080p off-screen)



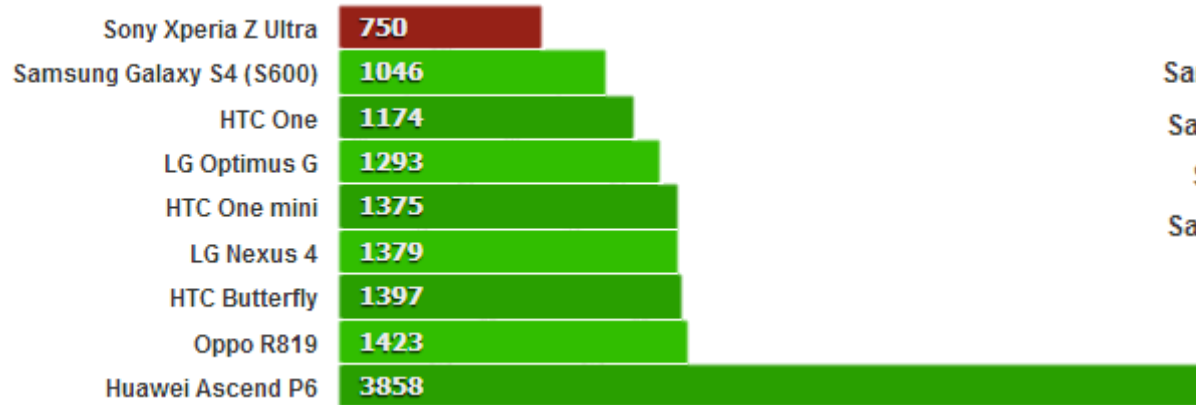
Epic Citadel



Sony Xperia Z Ultra

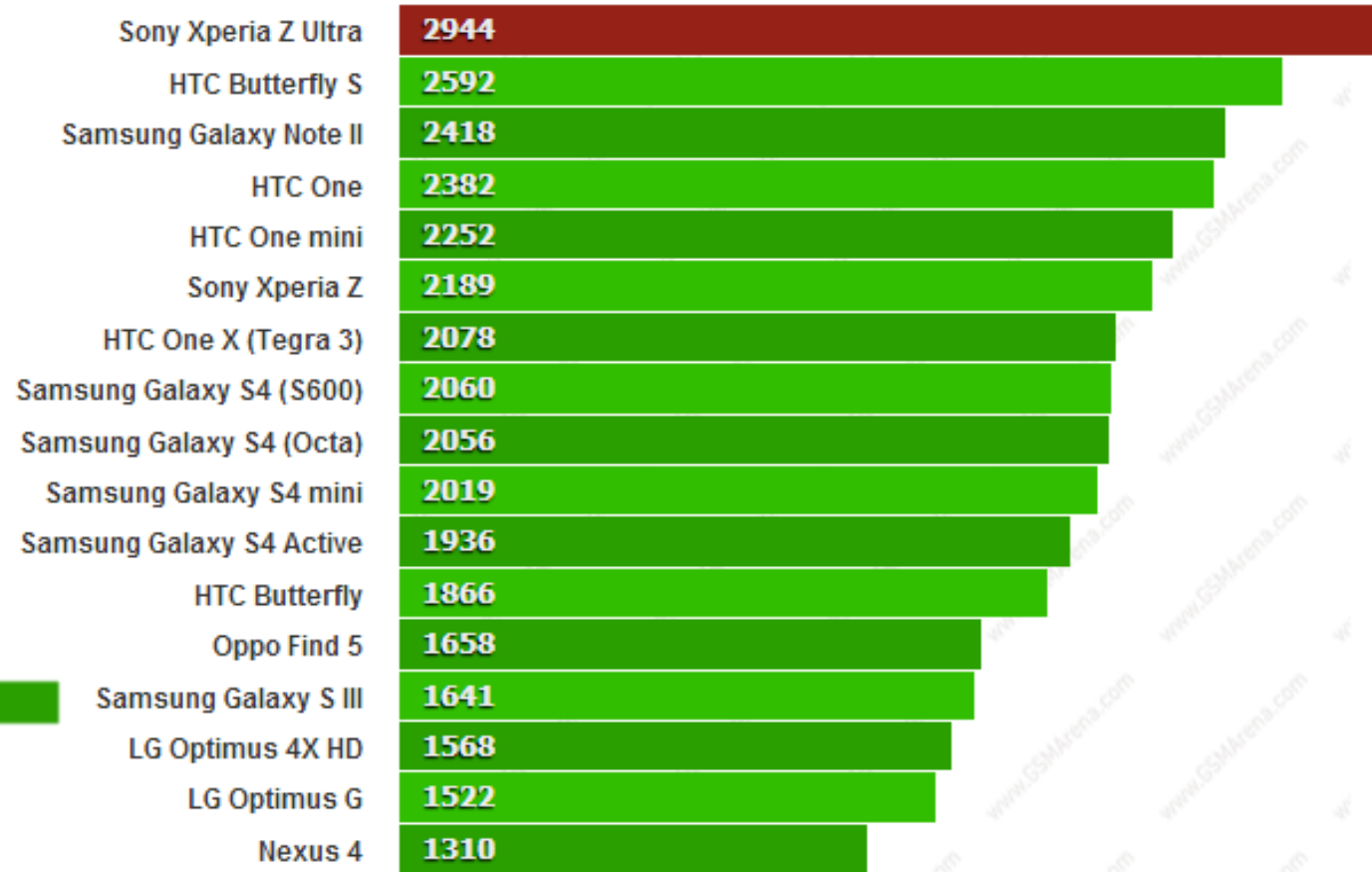
Sunspider

Lower is better



*“The **JavaScript performance** of the Sony Xperia Z Ultra Chrome browser is **the best we've seen so far**. Since SunSpider has recently released a new v1.0.1 we had to update the old scores.” -- GSMArena*

Vellamo



*“The Sony Xperia Z Ultra came back to its **rightful top place in the Vellamo benchmark**” -- GSMArena*

LG G2

“Comes with a powerful Snapdragon 800 processor which is anywhere between 25% to 50% faster than the previous Snapdragon 600.

It is obvious that the latest hardware will run any 1080p videos without any issues. Heck, the Snapdragon 800 chip can also decode 4k videos if you have some handy – it looks awesome (I successfully played a TimeScapes 4K video).

If we’re talking about smartphones on the market, the LG G2 is among the top 2 phones in terms of performance.”

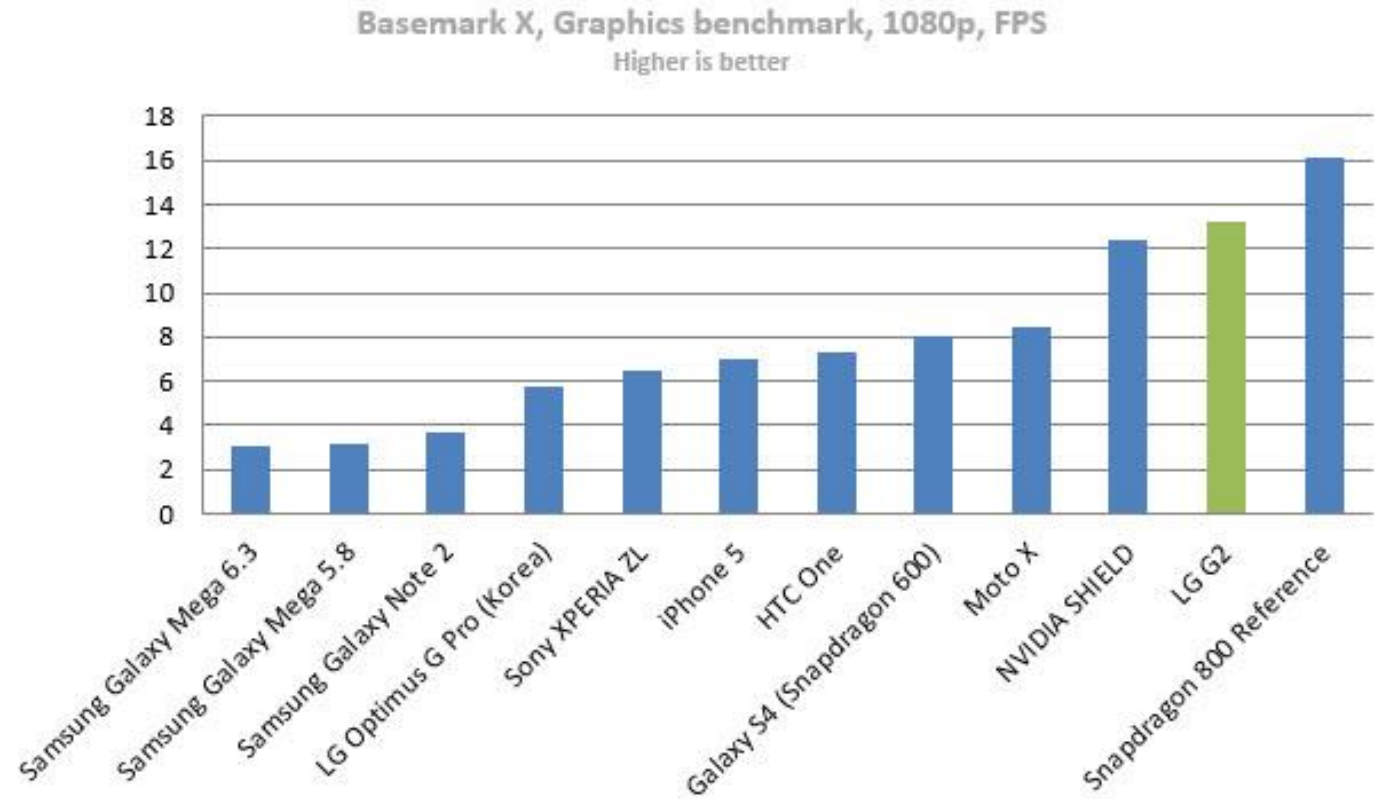
-- Hubert Nguyen , Ubergizmo



LG G2

*“The G2 is **very powerful**, both in terms of raw **math performance and graphics performance**. In practice, this means that **games will run at very high framerates** and that’s how gaming should be. In general, I found the raw power to be most useful in games, but when there are a lot of apps in the background entry-level phones start getting into trouble. I suppose that having more RAM also helps in that particular case. **It’s not just all CPU.**”*

-- Hubert Nguyen, Ubergizmo

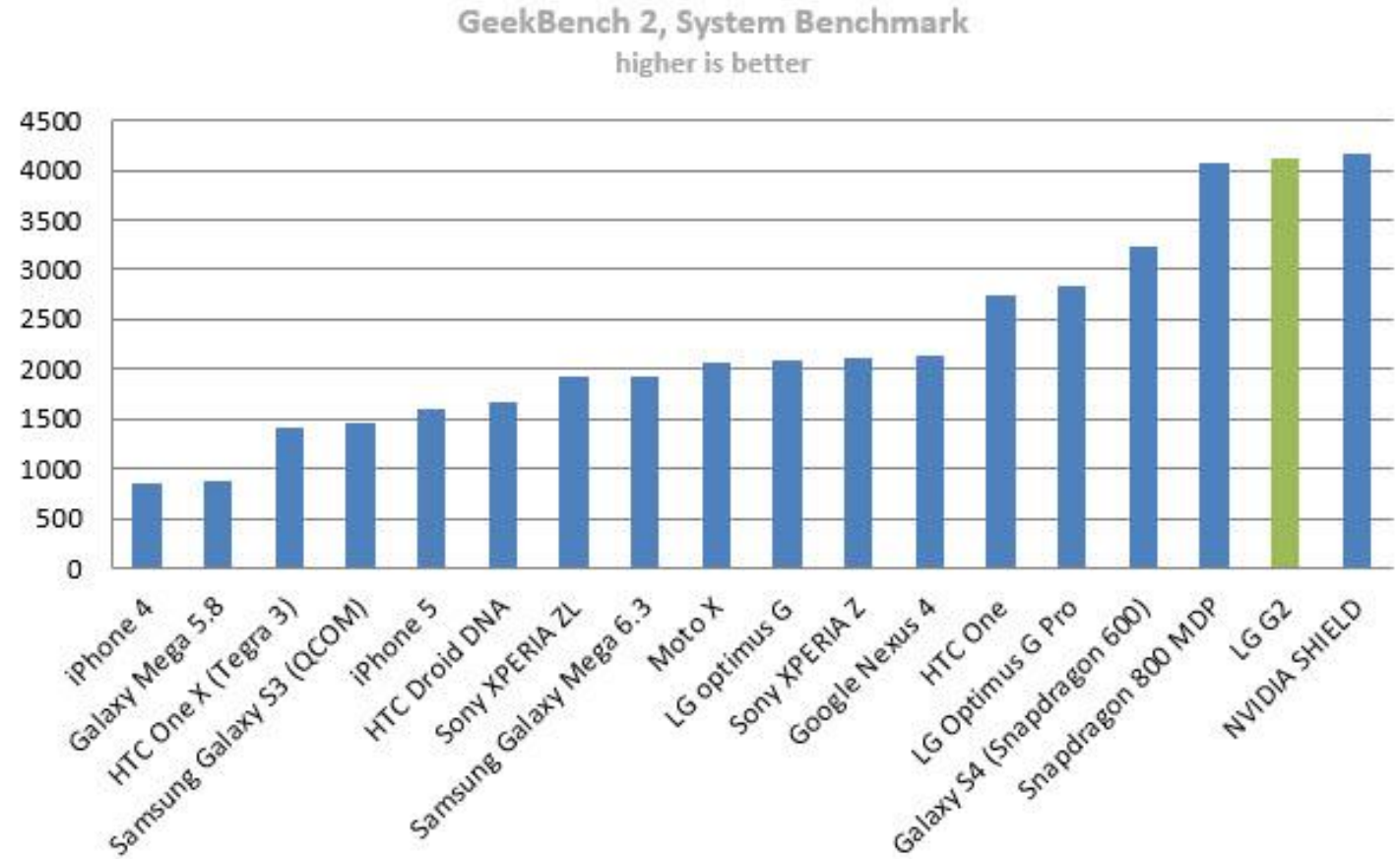


LG G2

*“There is also the **responsiveness** aspect that is **extremely important** in my opinion. Since user interface (UI) speed is not always related to raw performance, I’m glad to report that the LG G2 shows an **exemplary fluidity when it comes to swiping, scrolling and other UI activity**. To show you, I have loaded the home page with a bunch of big widgets, and I’m swiping around. Watch the video and you will notice that the **UI never slows down and suffers from lag. Nice.**”*

*Its display is beautiful and the **Snapdragon 800 processor is more than capable of handling everything that we threw at it**. On top of that, the phone has an **excellent battery life**, so this is a winning combination.”*

-- Hubert Nguyen, Ubergizmo

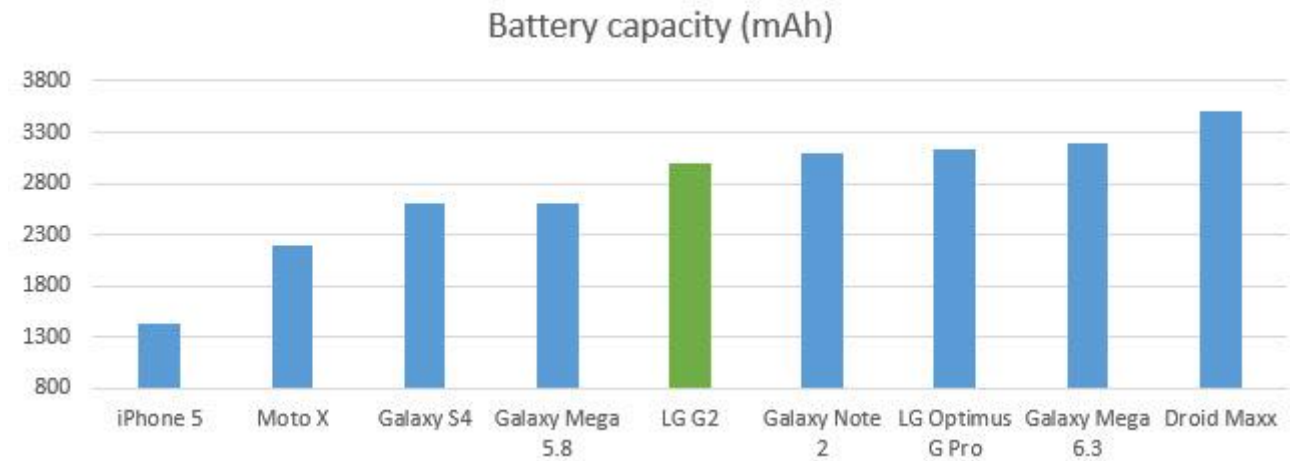


LG G2

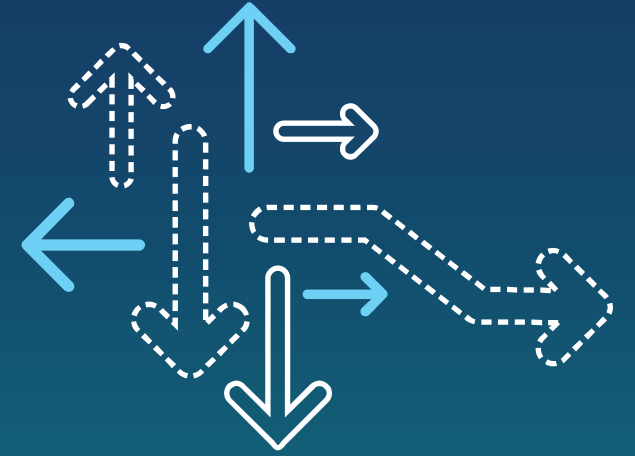
"If you decide to download the movie to the phone's storage, things get even better: in our test, 60mn of HD movie did cost only 9% of the battery, which brings the maximum video playback time to 11.1 hours. That's enough for me.

Finally, if we leave the phone ON (with notifications, emails, GPS OFF etc...) overnight for 8hrs, the battery went from 22% down to 19%. That's a mere 3% of depletion after 8hrs of standby. Why is this important? Because most of the time, your phone does exactly that: sleep, get notifications and wait until you actually turn it on. A slow standby battery depletion is probably one of the most important things in a smart device.

-- Hubert Nguyen, Ubergizmo



Qualcomm® Snapdragon™ 600



Vivo Xplay Review

Vivo Xplay
Snapdragon600

“就像题目所提到的那样，单就影音体验来说，vivo Xplay这方面的综合实力无愧于其“影音旗舰”的称号——视频方面，配备5.7英寸大屏的机型很少有采用性能如此强势的骁龙600平台、甚至采用1080p分辨率的也不多，且不说网络视频资源这些其他机型也可以整合的部分，单就硬件能力来说，屏幕的显示素质、音频解码素质和扬声器的外放素质这些硬实力都是旗舰机行列都少有的；音乐方面，虽然更详细的专项测试需要稍后推出，但是可以说的是，你也不太可能找到音质和推力更好的手机了。”

-邱鑫 ZOL.com.cn

“As the title mentioned, just the AV experience alone, the Vivo Xplay is worthy of the name “The AV flagship”. – phones that have a 5.7 inch screen rarely uses such powerful processors like the Snapdragon 600 platform and 1080p displays, not to mention internet video resources that other phone can but wont implement. Just the hardware specs alone, the screen quality, audio decode quality and speaker output are outstanding even for a flagship phone. In terms of audio, a more detailed review will be coming out soon but you might not find a phone with better audio quality and amplification.

- Chou Xin ZOL.com.cn



当之无愧的影音旗舰
vivo Xplay全面评测

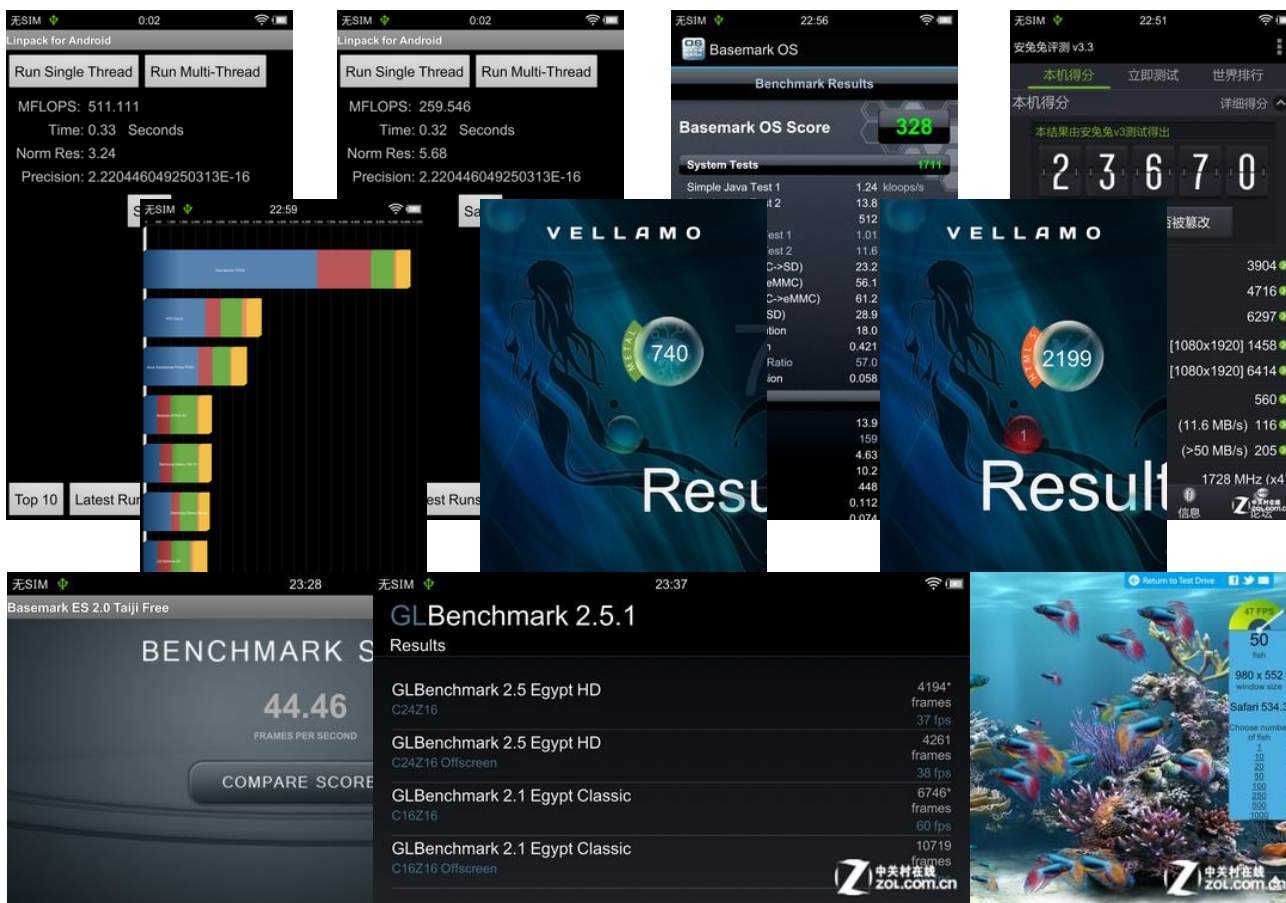
APQ8064T
Adreno 320
Hi-Fi Audio

“从表面来看，细数一下这些参数：5.7英寸LTPS屏、骁龙600平台、1300万像素Exmor RS摄像头——基本等同于今年国际级别旗舰机的硬件水平。”

-邱鑫 ZOL.com.cn

Looking at the specs: 5.7 inch LTPS display, Snapdragon 600 platform, 13MP Exmor RS camera – these specs achieved this years international flagship phone on the hardware level.

- Chou Xin ZOL.com.cn



	Antutu 3.x	Quadrant 2.0	Basemark ES2.0 Taiji	GLBenchmark Egypt 2.5 HD(fps)	Linpack Single Tread	Linpack Multi Tread	Vellamo 2 HTML5	Basemark OS
Benchmark Scores	23,670	10,729	44.46 fps	38	259.546	511.111	2199	328

Xiaomi 2S Review

Xiaomi 2S
Snapdragon600

ZOL 手机

“小米手机2S整体来讲与小米手机2差异并不是很大，毕竟小米手机2也能刷MIUI，两者的主要差距还是在跑分和32GB版的摄像头上。小米手机2S的性能确实提升了不少，这一点在后边附录中的跑分成绩可以体现，而这也是骁龙600处理器带来的好处，但小米手机2S真正亮眼的地方并不是处理器或摄像头的改变就能带来的。”

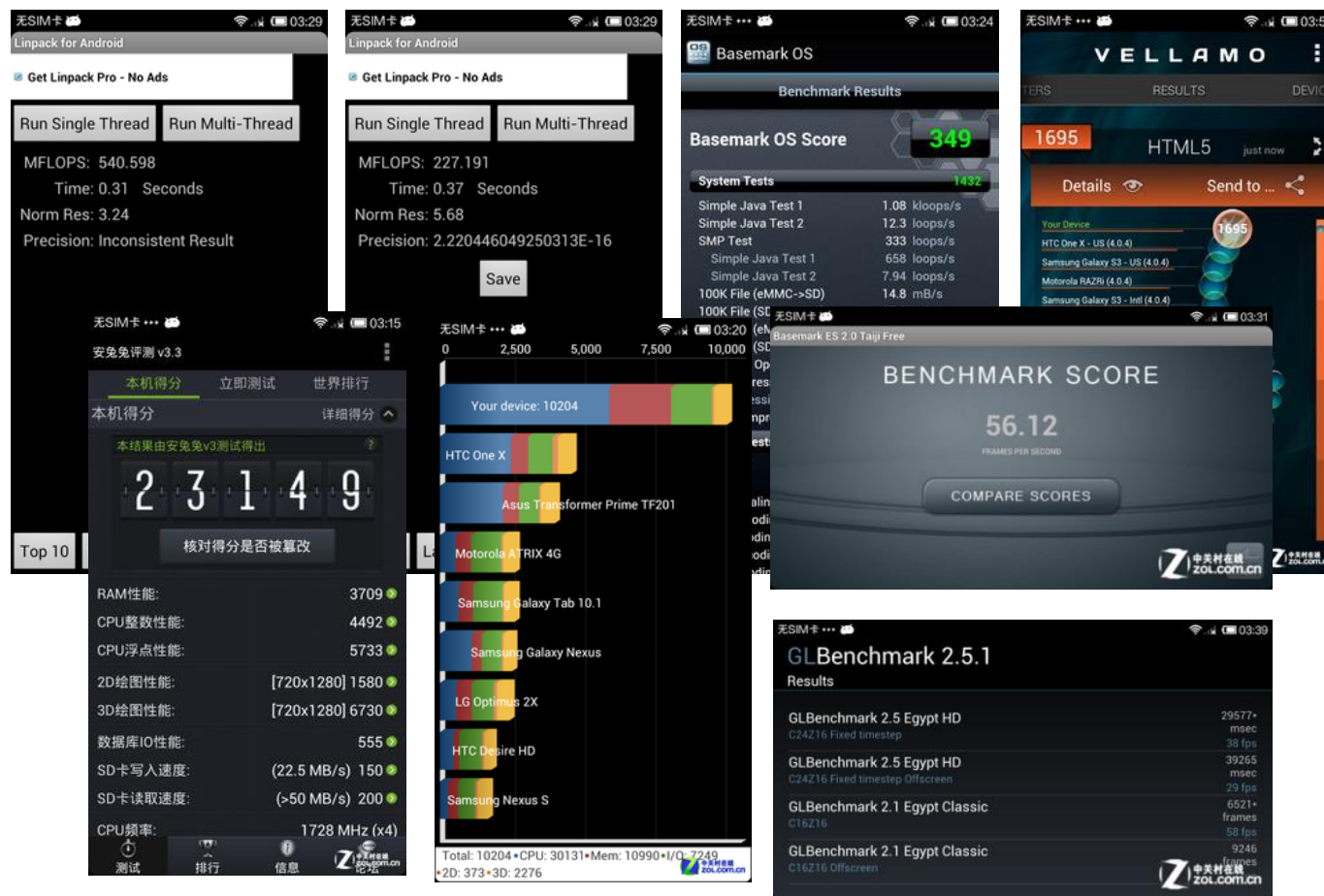
- 毛文婷 ZOL.com.cn

“The Xiaomi 2S is not so much different then its predecessor, the Xiaomi 2 as its capable to flash the OS to MIUI”, the difference between the two is benchmark and the camera on the 32GB version. Xiaomi 2S has a noticeable improvement on performance, we can see that later on the benchmark page, and this is what the Snapdragon 600 is able to deliver.

- Mao Wenting ZOL.com.cn



APQ8064T
Adreno 320
MIUI V5



其实在小米手机2采用APQ8064处理器时，多媒体娱乐性能就已经表现得非常到位了。小米手机2S升级到1.7GHz的骁龙600处理器，对1080p视频的支持肯定是毋庸置疑的。

- 毛文婷 ZOL.com.cn

The multimedia performance is spot-on on the Xiaomi 2 with the APQ8064. With an upgrade to a 1.7GHz Snapdragon 600 processor, the Xiaomi 2S will undoubly have great 1080p support.

- Mao Wenting ZOL.com.cn

	Antutu 3.x	Quadrant 2.0	Basemark ES2.0 Taiji	GLBenchmark Egypt 2.5 HD(fps)	Linpack Single Tread	Linpack Multi Tread	Vellamo 2 HTML5	Basemark OS
Benchmark Scores	23,149	10,204	56.12 fps	38	227.191	540.589	1695	349

HTC One Review

“At the beginning of 2012, the flagship smartphone platform was Qualcomm's MSM8960 featuring two Krait cores, Adreno 225 GPU and integrated LTE on TSMC's 28nm LP process. By the end of the year, the target shifted to Qualcomm's Fusion 3 platform: APQ8064/Snapdragon S4 Pro featuring four Krait cores, Adreno 320 GPU and a discrete MDM9x15 LTE baseband also on TSMC's 28nm LP process. Here we are, less than half a year later and the bar has been raised once more.”

– Brian Klug, AnandTech.com

The new HTC One
Snapdragon 600

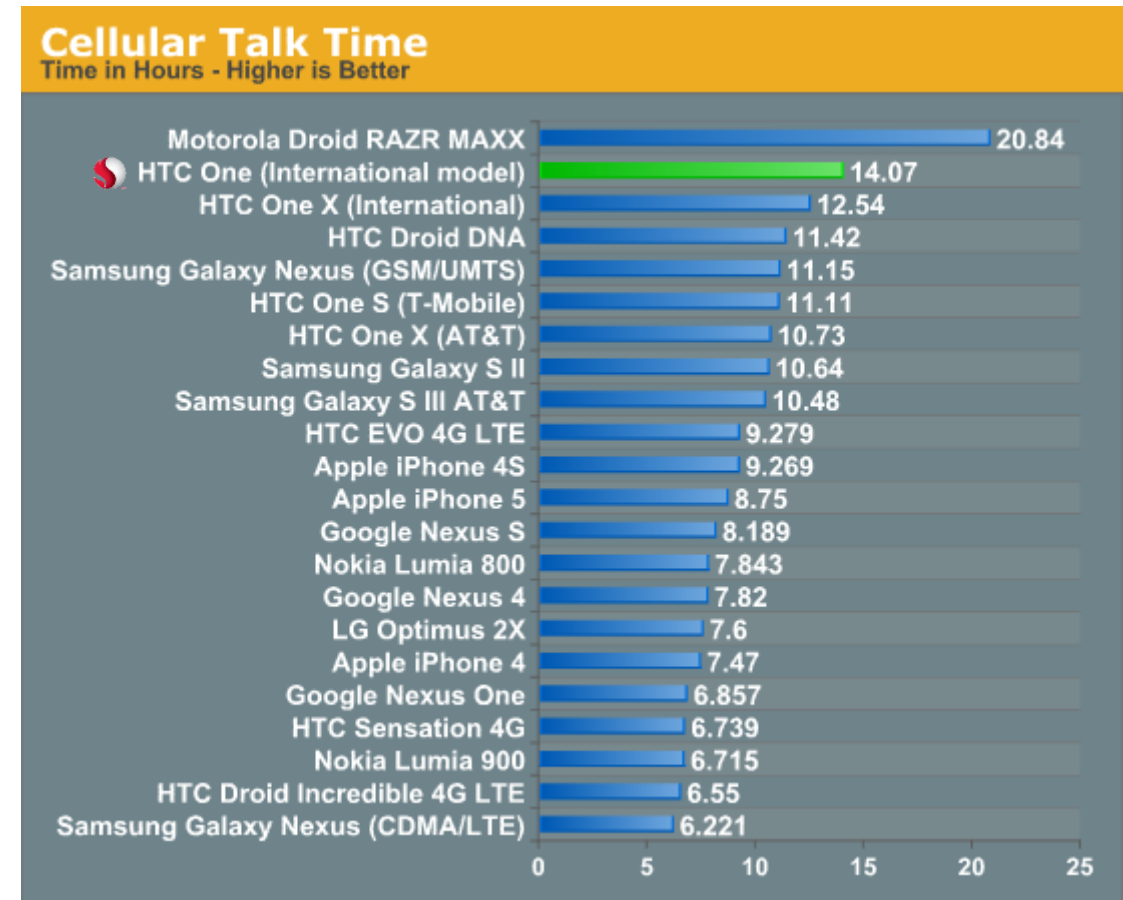


Adreno 320
1080p Display

Battery Life

“On cellular talk time the One really shines, coming in well ahead of almost everything else. This is an impressive result.”

– Brian Klug, AnandTech.com



Battery Life

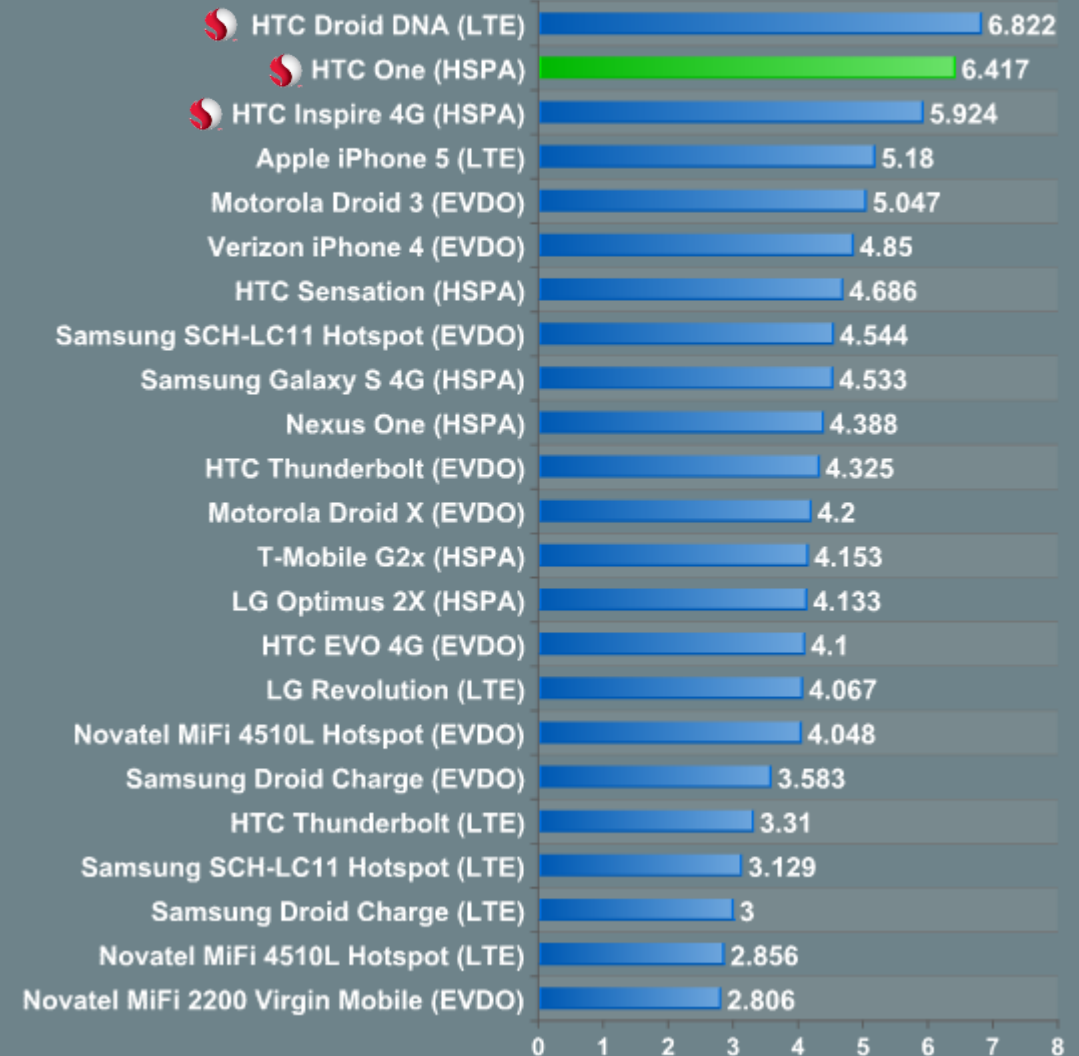
*“As a hotspot once again **we have great battery performance**. This test consists of four of the page loading tabs running on an attached notebook in addition to 128kbps streaming MP3 audio being played on the device. This is a challenging test that results in the cellular connection being lit up almost constantly, and isolates out display.”*

*My subjective impressions using the HTC One as my personal device are that **battery life is quite good**, and moreover that the DNA battery life also was better than some other phones people had no problems with in 2012.”*

– Brian Klug, AnandTech.com

WiFi Hotspot Battery Life Time

Time in Hours - Higher is Better

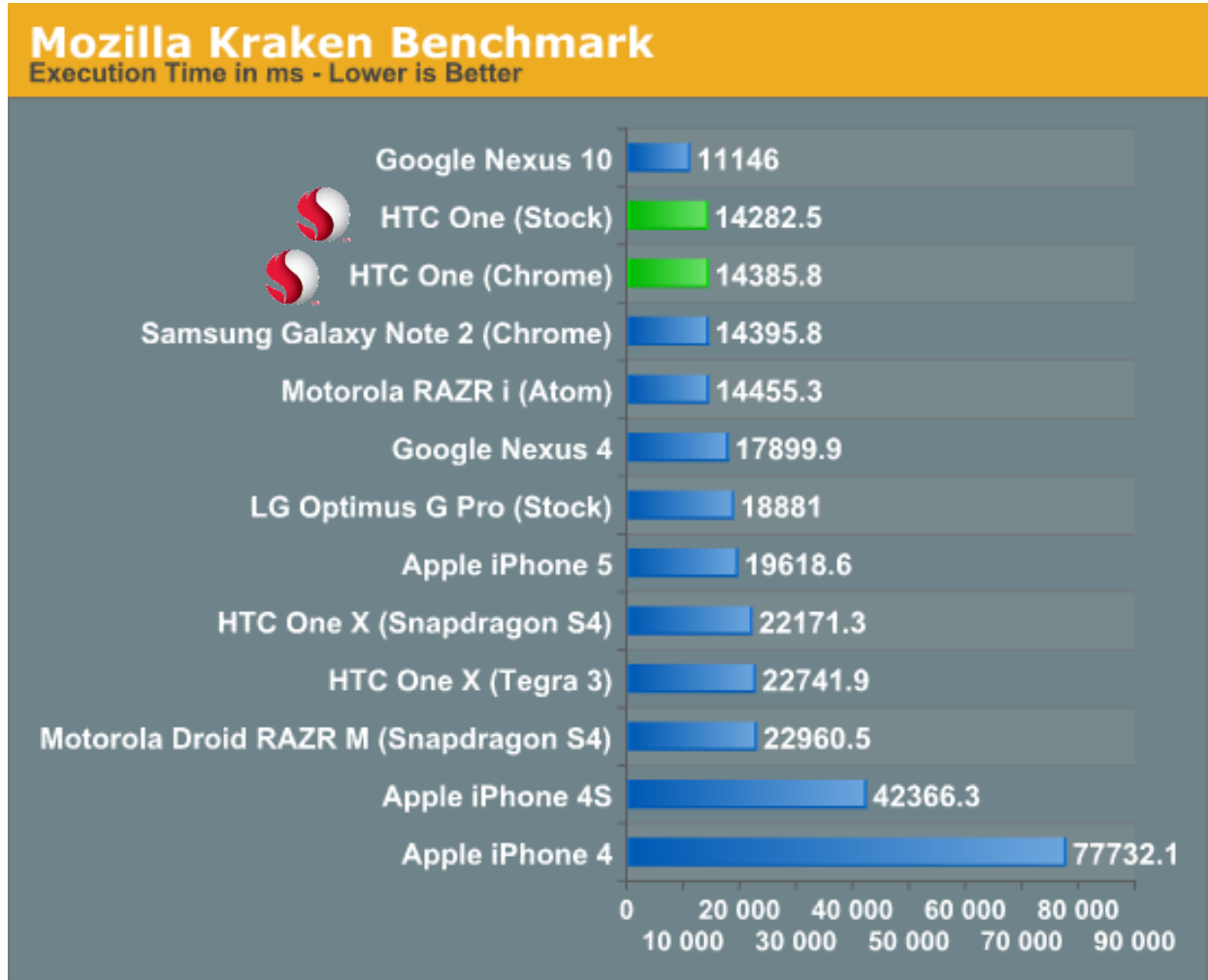


CPU Performance



“Kraken is likely the least optimized for javascript benchmark we have in our suite, which makes it (temporarily) interesting. There's also the fact that the benchmark is quite large and takes a while to run on all platforms, giving us some more useful results... Otherwise the One is the fastest Android device we've tested here.”

– Brian Klug, AnandTech.com

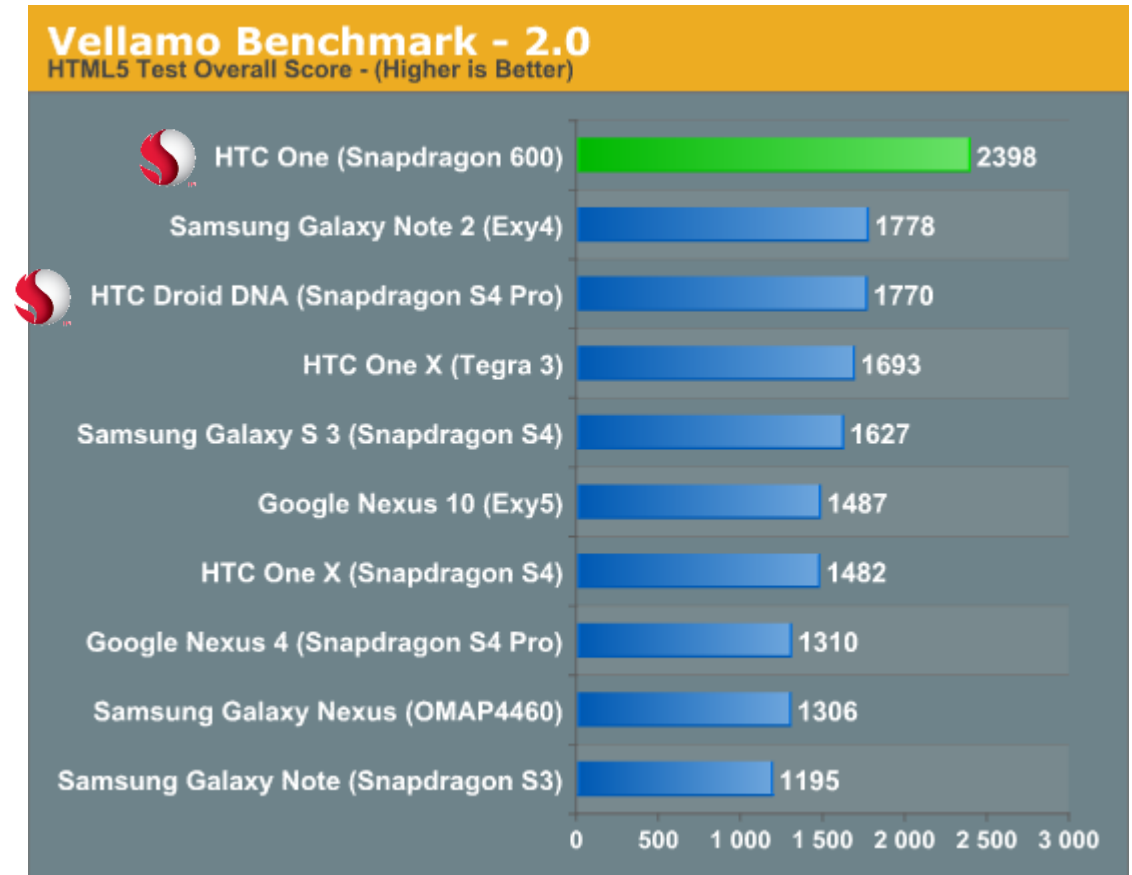


CPU Performance



“Our two Vellamo benchmarks both show the One doing very well. In the HTML5 test, the One puts everything else to shame - including the old APQ8064 based Droid DNA and the Galaxy Note 2. The Qualcomm comparison is the more interesting as it echoes some of what we saw in the microbenchmarks - take into account the clock speed difference and you're looking at a 22% improvement in performance due to the new Krait 300 cores.”

– Brian Klug, AnandTech.com

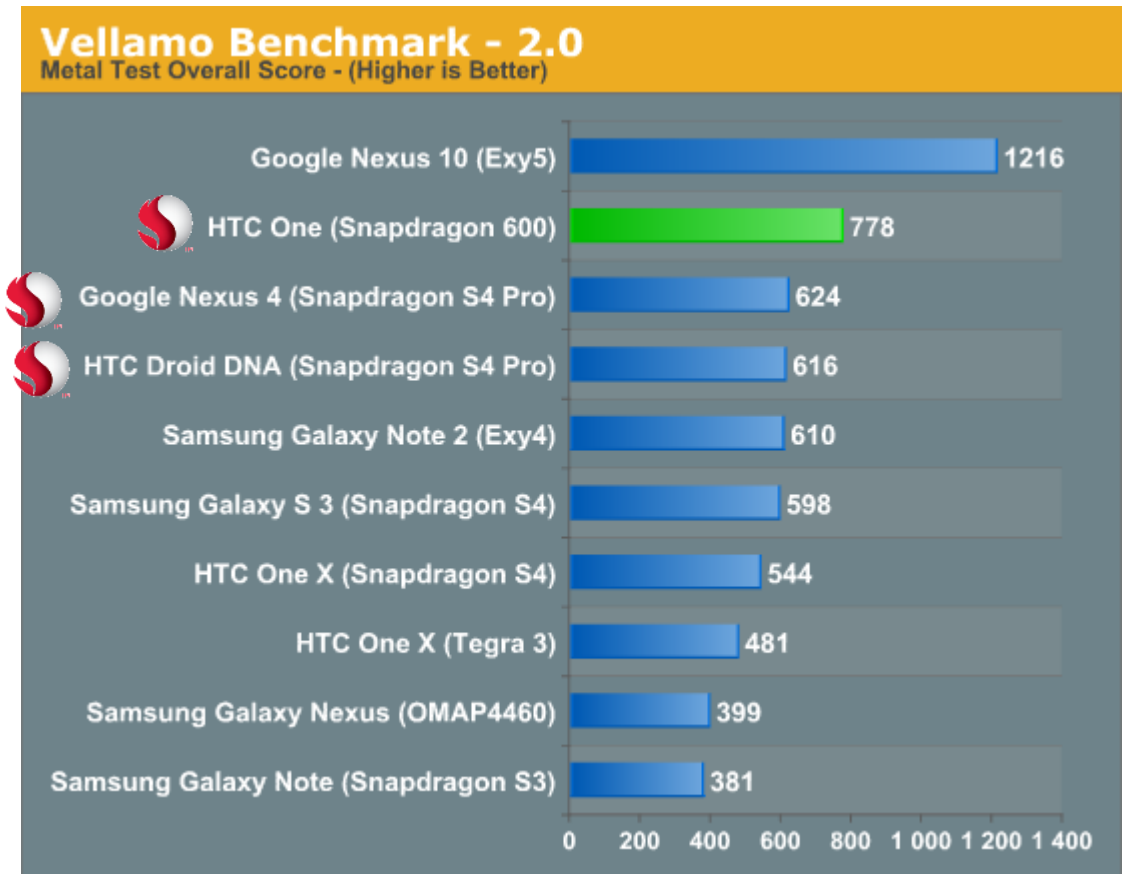


CPU Performance



“Subjectively, the new Snapdragon 600 platform is appreciably quicker than the previous generation S4 Pro. The margin of improvement will really depend on the application you're using, but in terms of responsiveness the HTC One is among the best out today.”

– Brian Klug, AnandTech.com

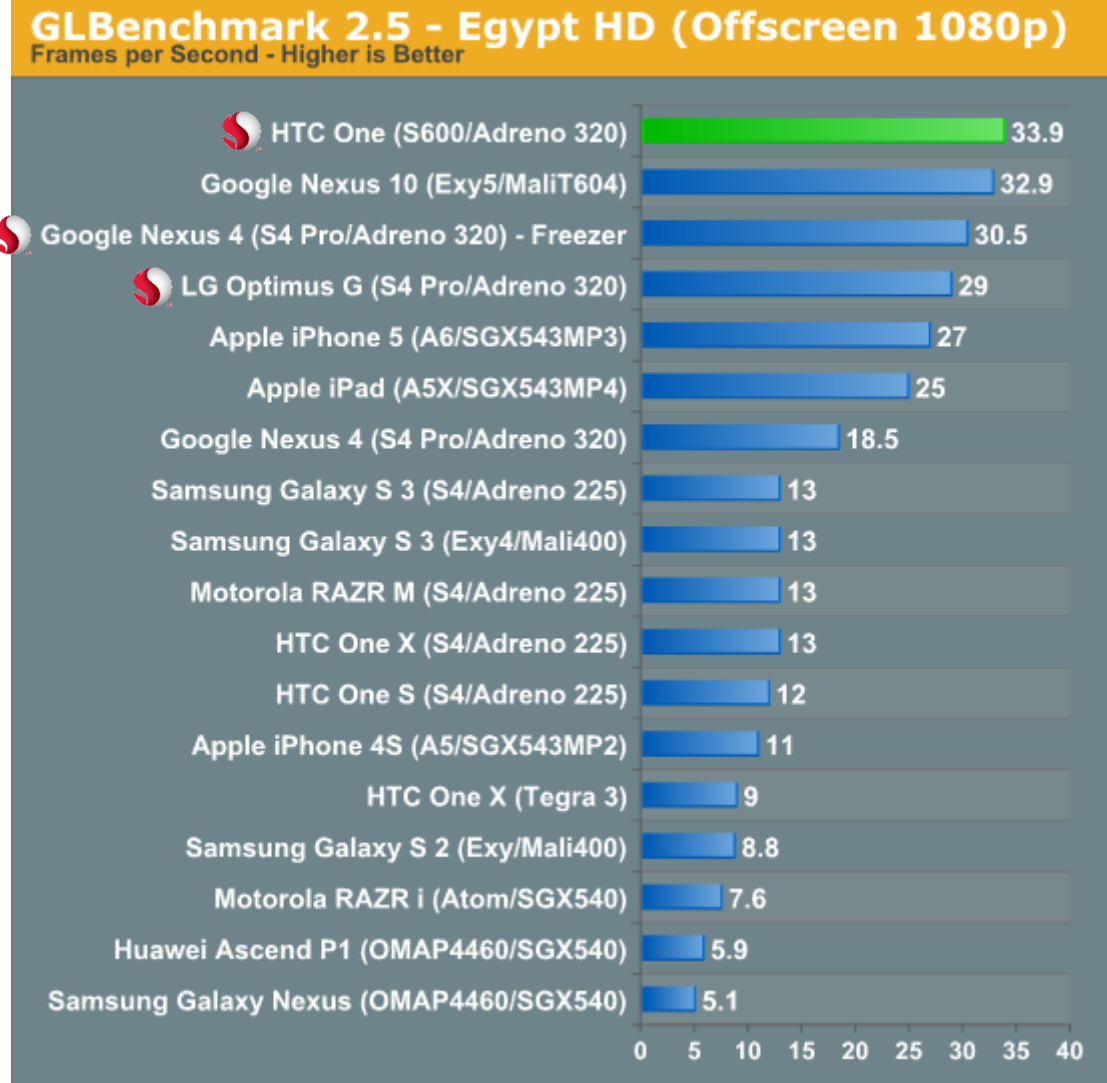


GPU Performance



*“The “game” benchmarks in GLBench give us a good indication of overall performance. The offscreen results are most interesting from drawing comparative conclusions:
The One is fast - it's now the fastest smartphone we've ever tested in the Egypt HD offscreen test.”*

– Brian Klug, AnandTech.com



GPS Performance



*“**GNSS** (Global Navigation Satellite System) on the HTC One comes basically for free **off of the MDM9x15/MDM8215 baseband** and includes both USA GPS and Russian GLONASS support. This is the same GPSoneGen8A with GLONASS that we’ve seen in many Qualcomm modems in the past, and I can’t find any issue with it on the One. It works off of one of the cellular receive paths and **locks extremely quickly.**”*

– Brian Klug, AnandTech.com



Overall Impressions

"I've never given any smartphone an editors choice award before, though I daily regret not giving the One S an award of some kind. For the HTC One I'm giving our Editors Choice Gold award, which is our second highest award. The One is an incredibly awesome device."

*I'm a big fan of the HTC One and can see myself using it for quite a while, even without seeing necessarily everything of its main upcoming contenders. It's a device which amazingly is built to **the kind of specifications I'd want from a device** — huge emphasis on camera, all metal construction with actively tuned antennas, and **a powerful SoC inside.**"*

– Brian Klug, AnandTech.com



SoC Performance



"If this data is representative of the sort of improvement we can expect from Snapdragon 600, I'll be happy." – Anand Shimpi, AnandTech.com

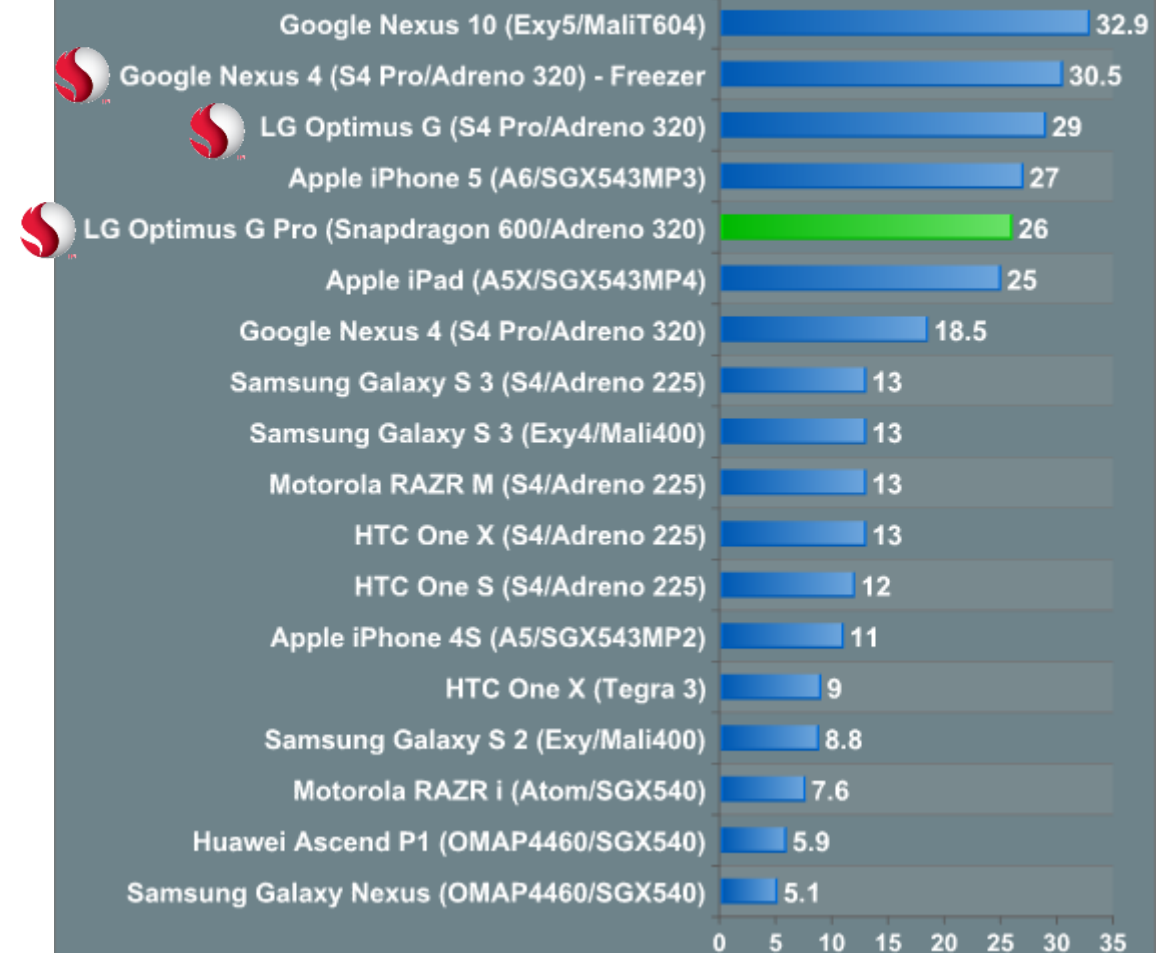
Mozilla Kraken Benchmark

Execution Time in ms - Lower is Better



GLBenchmark 2.5 - Egypt HD (Offscreen 1080p)

Frames per Second - Higher is Better



SoC Performance



“3DMark for Android seems to be another good data point to have. While the holy grail remains a good collection of actual games with integrated benchmarks representative of game play, at least having a good selection of simulated game tests is a lot better than where we were just a year ago...The fact that all of 3DMark's benchmarks are comparable across devices regardless of display resolution is a nice touch.” – Anand Shimpi, AnandTech.com

3DMark for Android - Default vs. Extreme Settings Comparison						
	 HTC One		Google Nexus 10		Google Nexus 7	
	Default	Extreme	Default	Extreme	Default	Extreme
Ice Storm Score	11309	6190	7990	5499	3539	1895
Graphics Score	11250	5942	7952	5030	3130	1581
Physics Score	11520	7246	8127	8165	6527	6196
Graphics Test 1	49.2 fps	29.8 fps	36.9 fps	27.3 fps	12.2 fps	7.5 fps
Graphics Test 2	48.7 fps	22.8 fps	32.5 fps	18.2 fps	15.3 fps	6.4 fps
Physics Test	36.6 fps	23.0 fps	25.8 fps	25.9 fps	20.7 fps	19.7 fps
Demo	52.5 fps	25.7 fps	35.2 fps	21.5 fps	16.8 fps	7.0 fps

GPU Performance

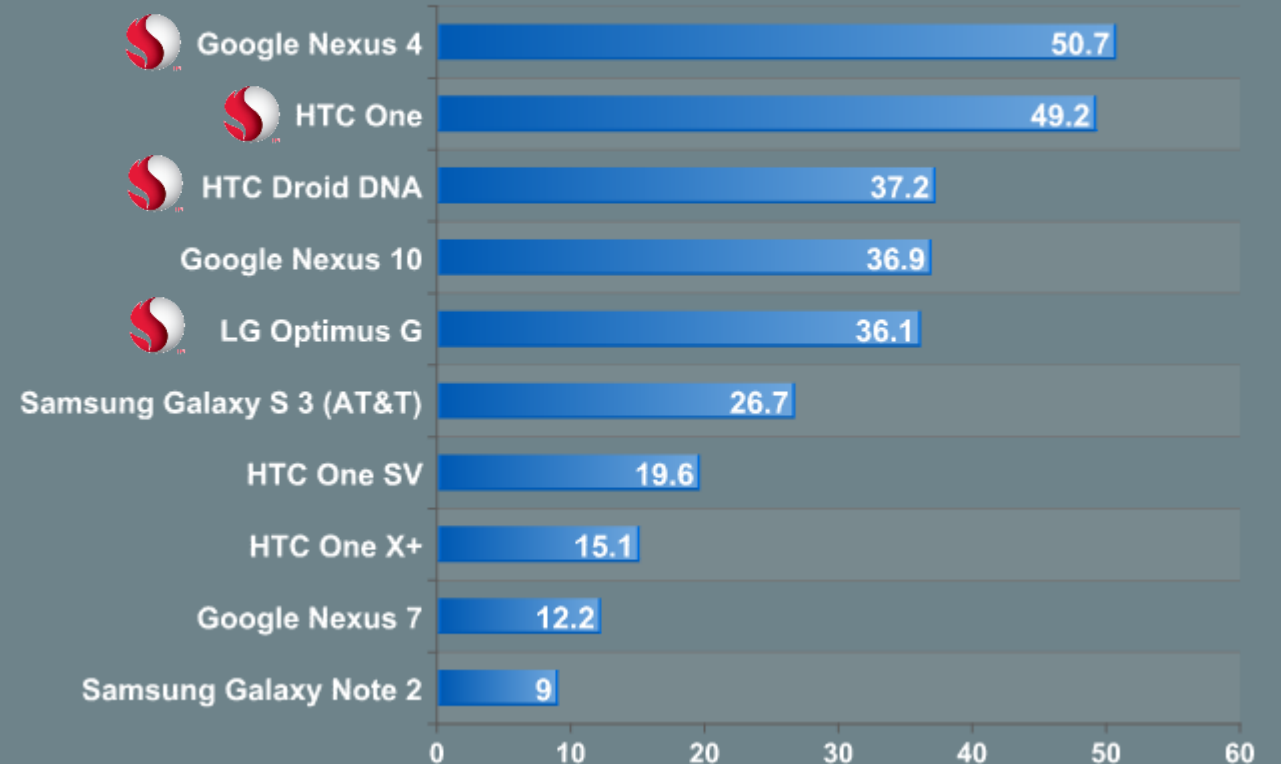


“Among Android smartphones, Qualcomm rules the roost here. The Adreno 320 based Nexus 4 and HTC One both do very well, approaching 60 fps in the first graphics test... the Nexus 10 remains squarely behind the top two Adreno 320 based devices” – Anand Shimpi, AnandTech.com



3DMark - Graphics Test 1

Frames per Second - Higher is Better



GPU Performance



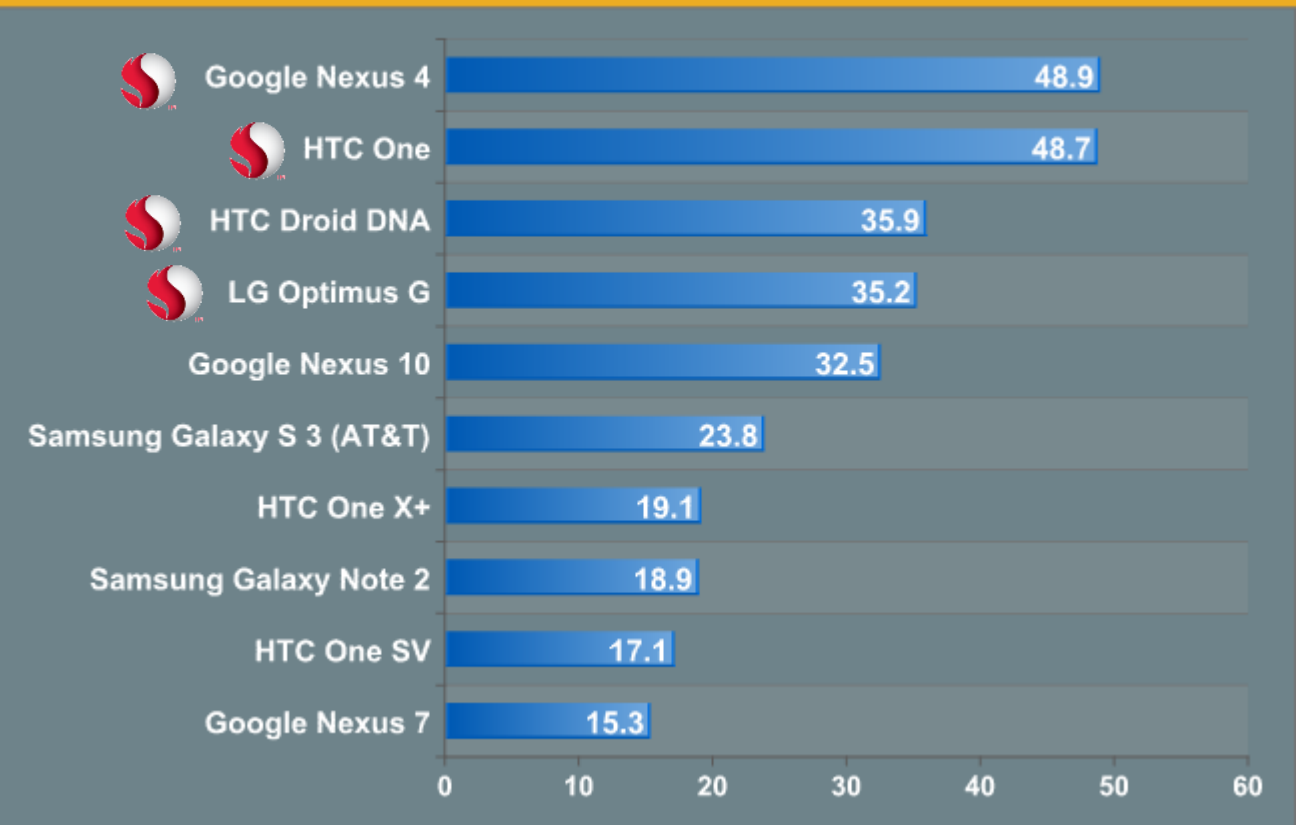
“Qualcomm's Adreno 320 just seems to deliver better performance in 3DMark for Android”

– Anand Shimpi, AnandTech.com



3DMark - Graphics Test 2

Frames per Second - Higher is Better



GPU Performance

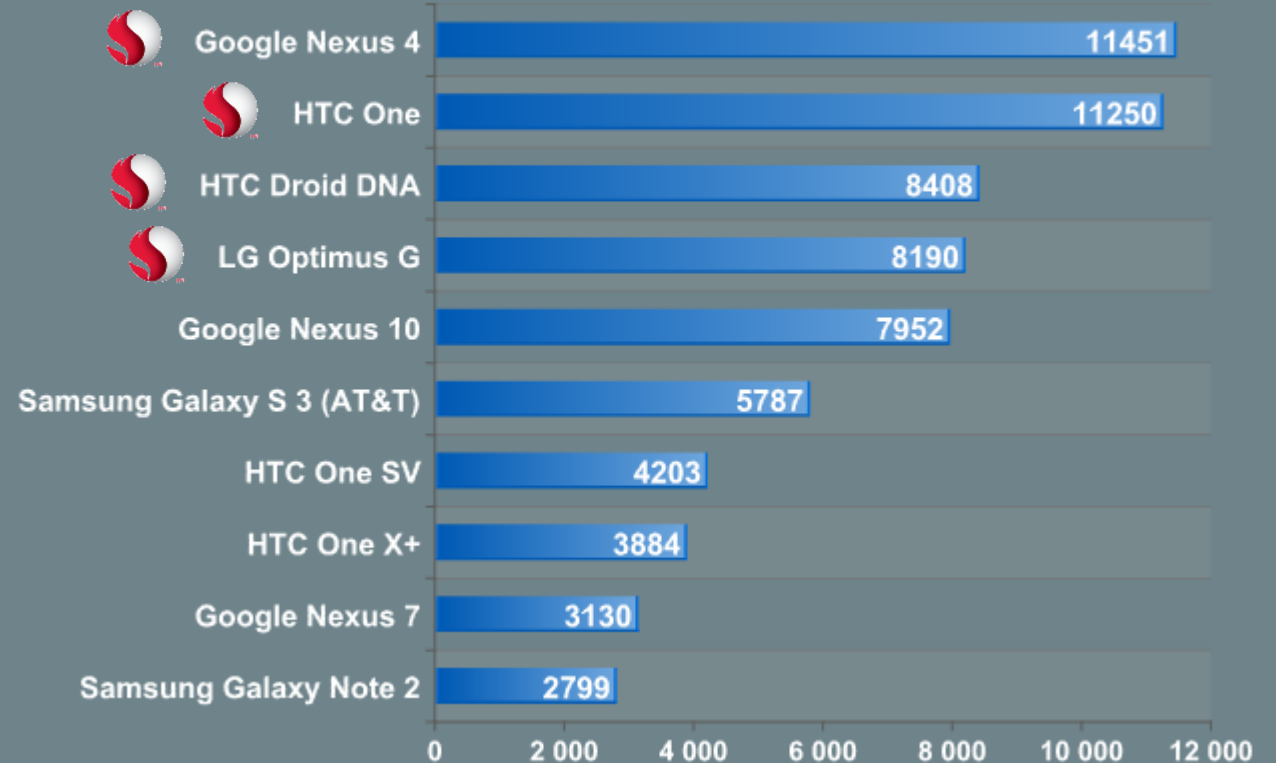


*"The overall score pretty much follows the trends we saw earlier. **Qualcomm's Adreno 320 leads things** (Nexus 4/HTC One), followed by ... (Nexus 10), Adreno 225 (SGS3), Adreno 305 (One SV), Tegra 3 (One X+/Nexus 7) and finally ... (Note 2). The only real surprise here is just how much better Adreno 320 does..."* – Anand Shimpi, AnandTech.com



3DMark - Graphics

Graphics Score - Higher is Better

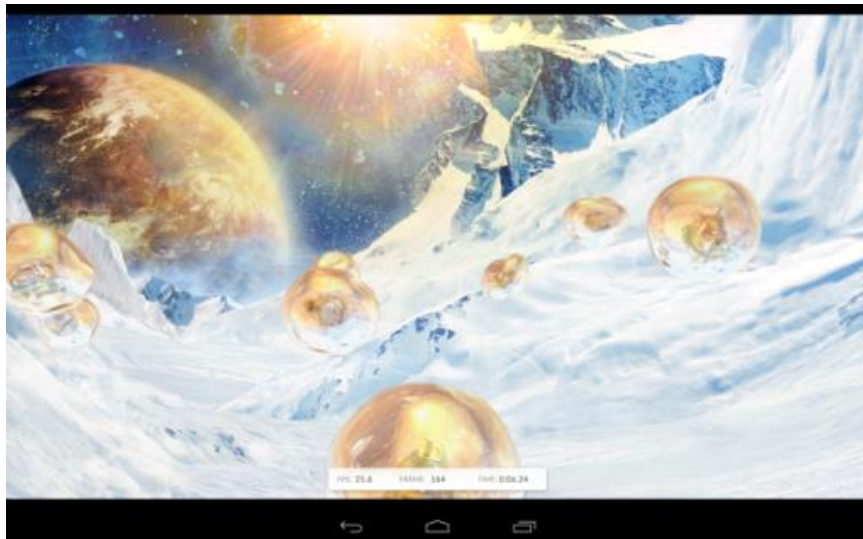


CPU Performance



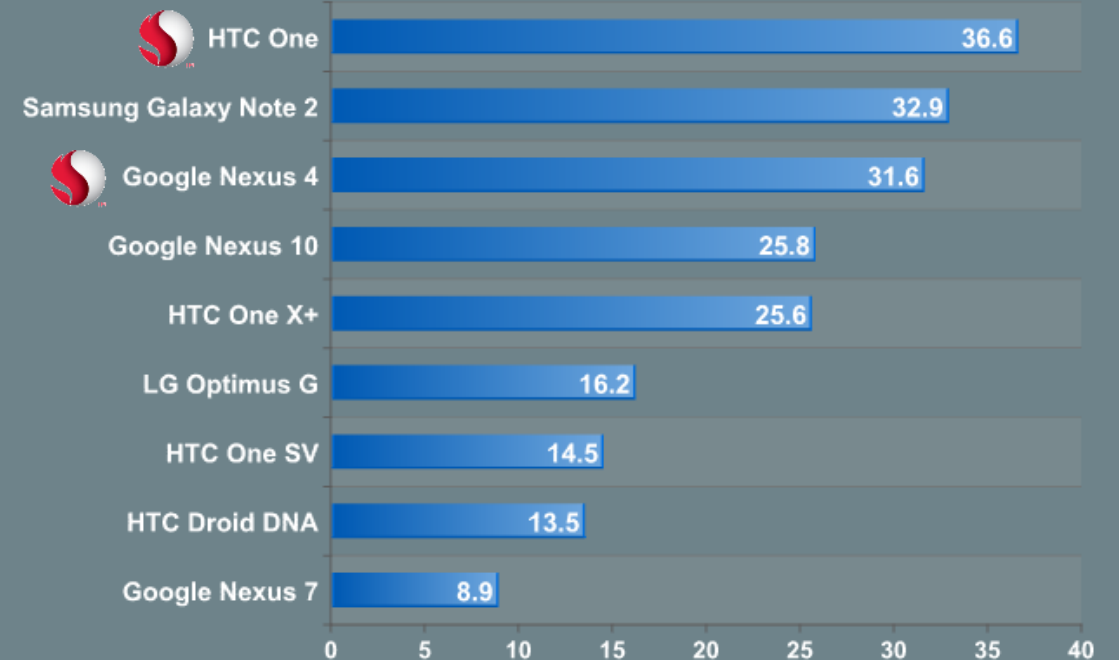
*"The physics results give us an indication of just how heavily threaded this benchmark is. **The quad-core devices are able to outperform the ...Nexus 10**"*

– Anand Shimpi, AnandTech.com



3DMark - Physics Test

Frames per Second - Higher is Better



GPU Performance



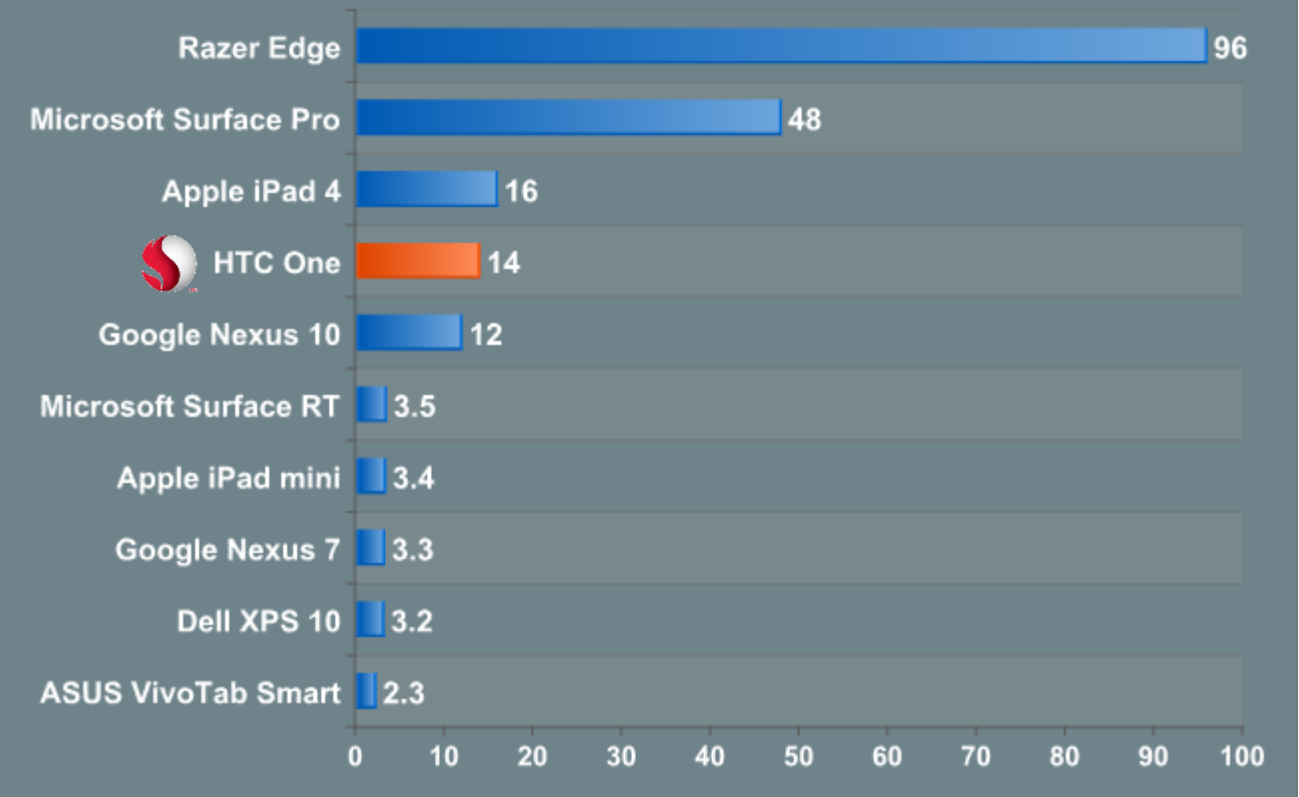
"It's also interesting to note that 3DMark seems to value the Adreno 320 more than ...the Nexus 10. I tossed results from the HTC One into the T-Rex HD benchmark data from GL/DXBenchmark 2.7 and found that the two benchmarks seem to agree on this point as well:"

– Anand Shimpi, AnandTech.com

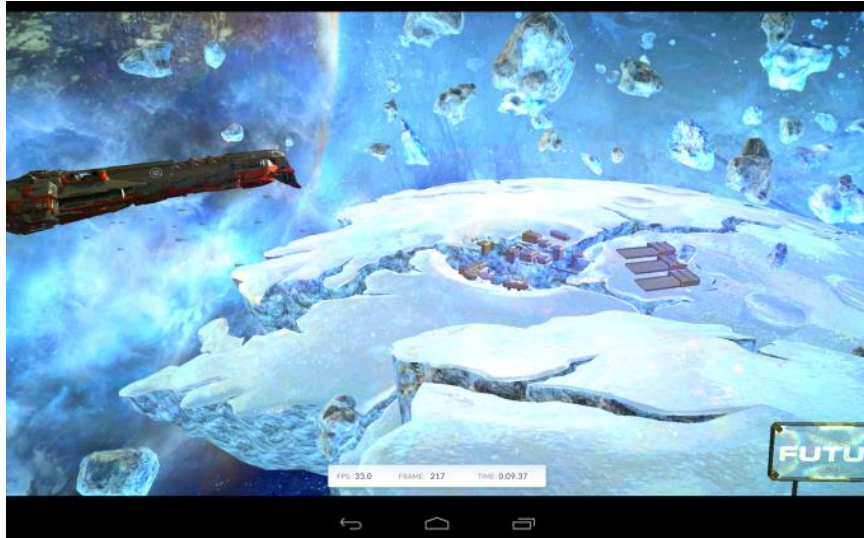


GL/DXBenchmark 2.7 - T-Rex HD (Offscreen)

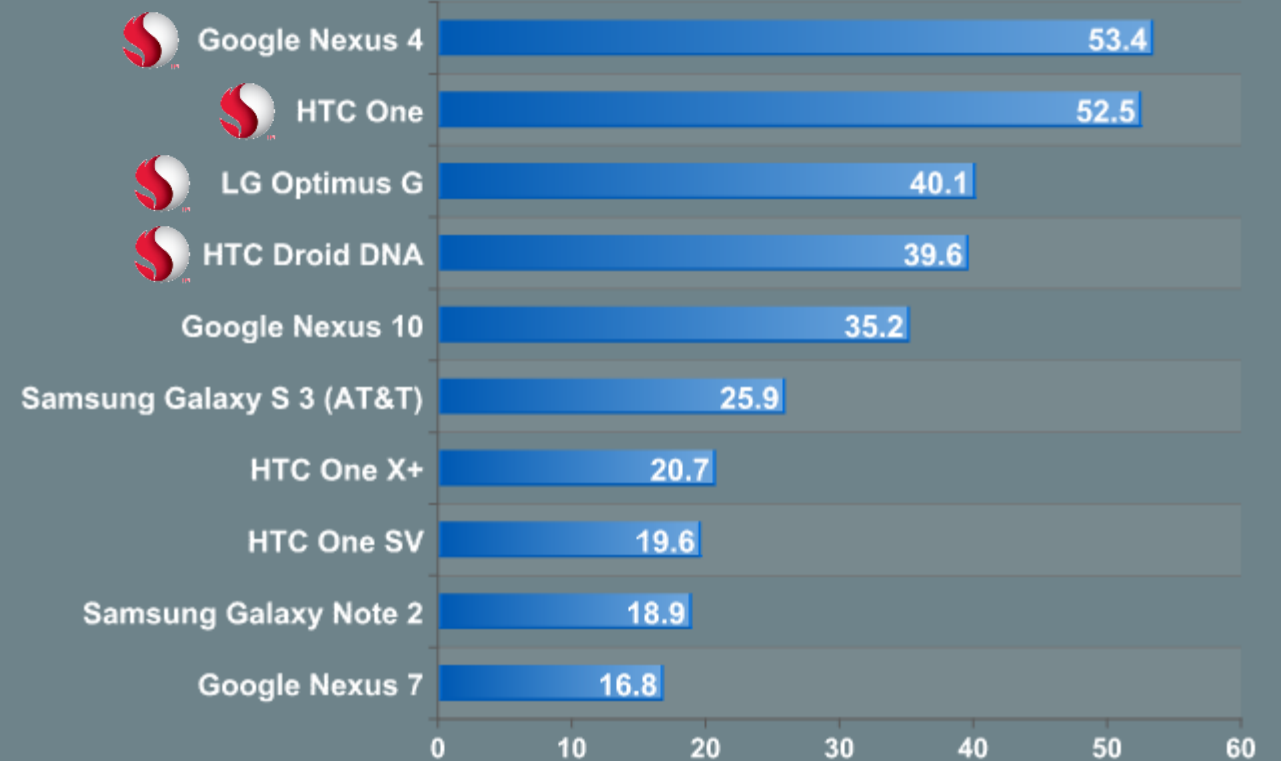
Frames per Second - Higher is Better



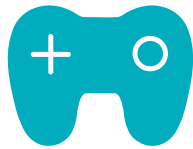
GPU Performance



3DMark - Demo Frames per Second - Higher is Better



Snapdragon 600 vs. Samsung Exynos 5410 Octa-Core



Multimedia and gaming

+35%

GLBenchmark 2.7
(T-Rex HD offscreen)

+12%

3DMark Ice Storm



Web browsing

+22%

Vellamo 2.0



App performance

+12%

AndeBench (native)

+16%

Linpack (multi-thread)

+35%

CF-Bench

Source : GFXBench 5/22/13, <http://gfxbench.com/device.jsp?benchmark=gfx27&D=Samsung+GT-I9500+Galaxy+S4>

Source : GFXBench 5/22/13, <http://gfxbench.com/device.jsp?benchmark=gfx27&D=Samsung+GT-I9505+Galaxy+S4>

Source : Engadget by Brad Molen 5/22/13, <http://www.engadget.com/2013/05/06/samsung-galaxy-s4-octacore-review/>

Snapdragon 600 vs. Samsung Exynos 5410 Octa-Core



Battery Life

+25%

Real-life use

+15%

Video Playback

*“...Exynos is designed to improve power efficiency, but **Qualcomm's offering still appears to have a slight edge in our video rundown tests and real-life usage.** In the former, which is our standard endurance test that runs HD video on an endless loop, the I9500 lasted for nearly eight hours. While this is still better than average compared to other **phones...it's noticeably worse than the Snapdragon-powered GS4,** which came in at nine hours and 15 minutes.”*

*The battery is better than average, but **still not quite as good as the Snapdragon-powered GS4.**”*

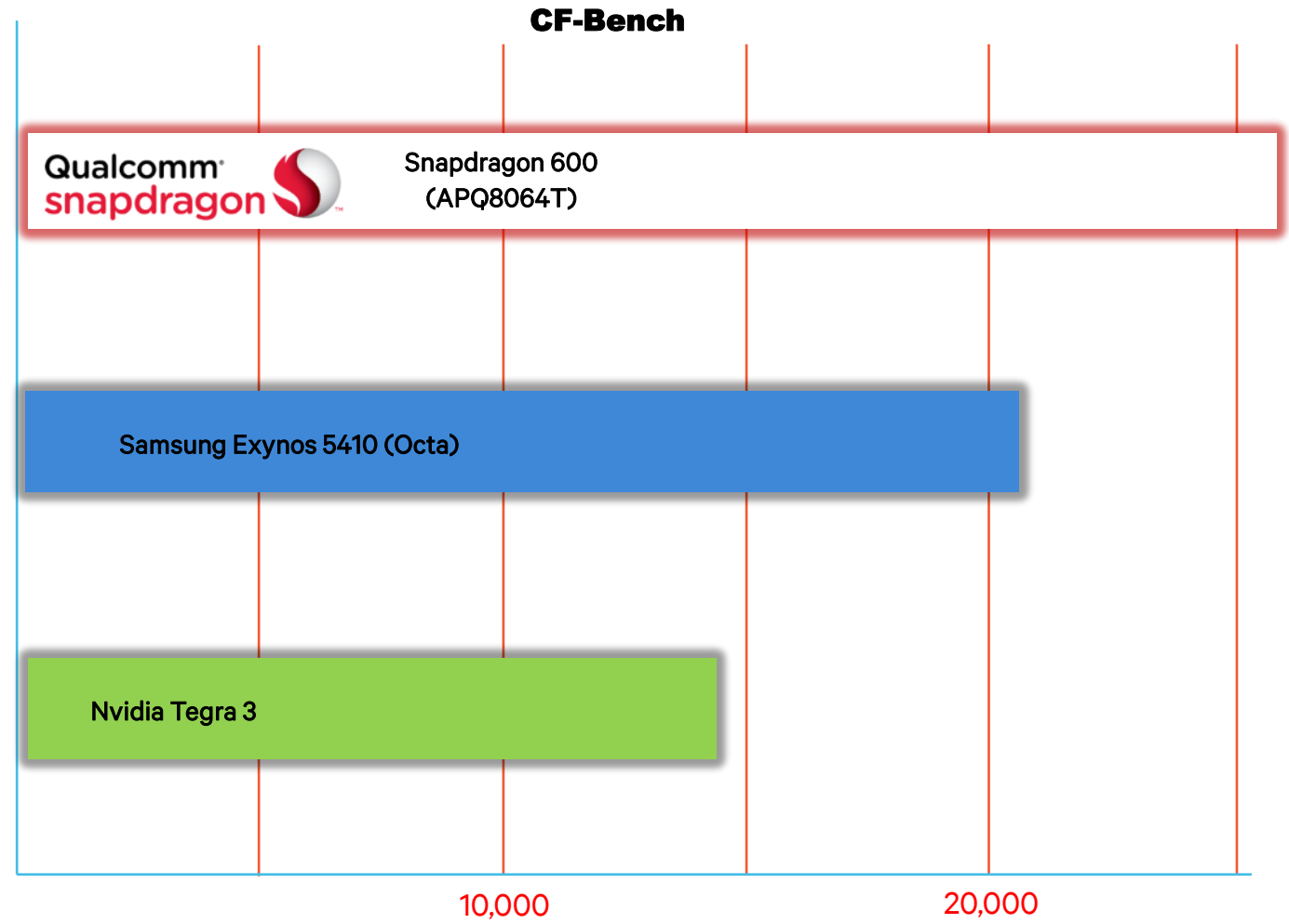
– Brad Molen, Engadget

CPU Performance



*“The device is powered by a 1.7GHz quad-core CPU, and it's one of the first to run a **Snapdragon 600** processor. I can attest that **it's incredibly fast** -- small tasks like quitting to the home screen, browsing through the app drawer, pinch zooming, and scrolling through text were all executed without hesitation. And more complicated tasks were done just as smoothly...”*

– Lynn La, c|net



Source : Engadget by Brad Molen 5/22/13, <http://www.engadget.com/2013/05/06/samsung-galaxy-s4-octacore-review/>

Source : CNET by Lynn La 3/11/13, http://reviews.cnet.com/cell-phones/lg-optimus-g-pro/4505-6454_7-35615393-2.html

Source : Engadget by Brad Molen 3/12/2013, <http://www.engadget.com/2013/03/12/htc-one-review>

CPU Performance

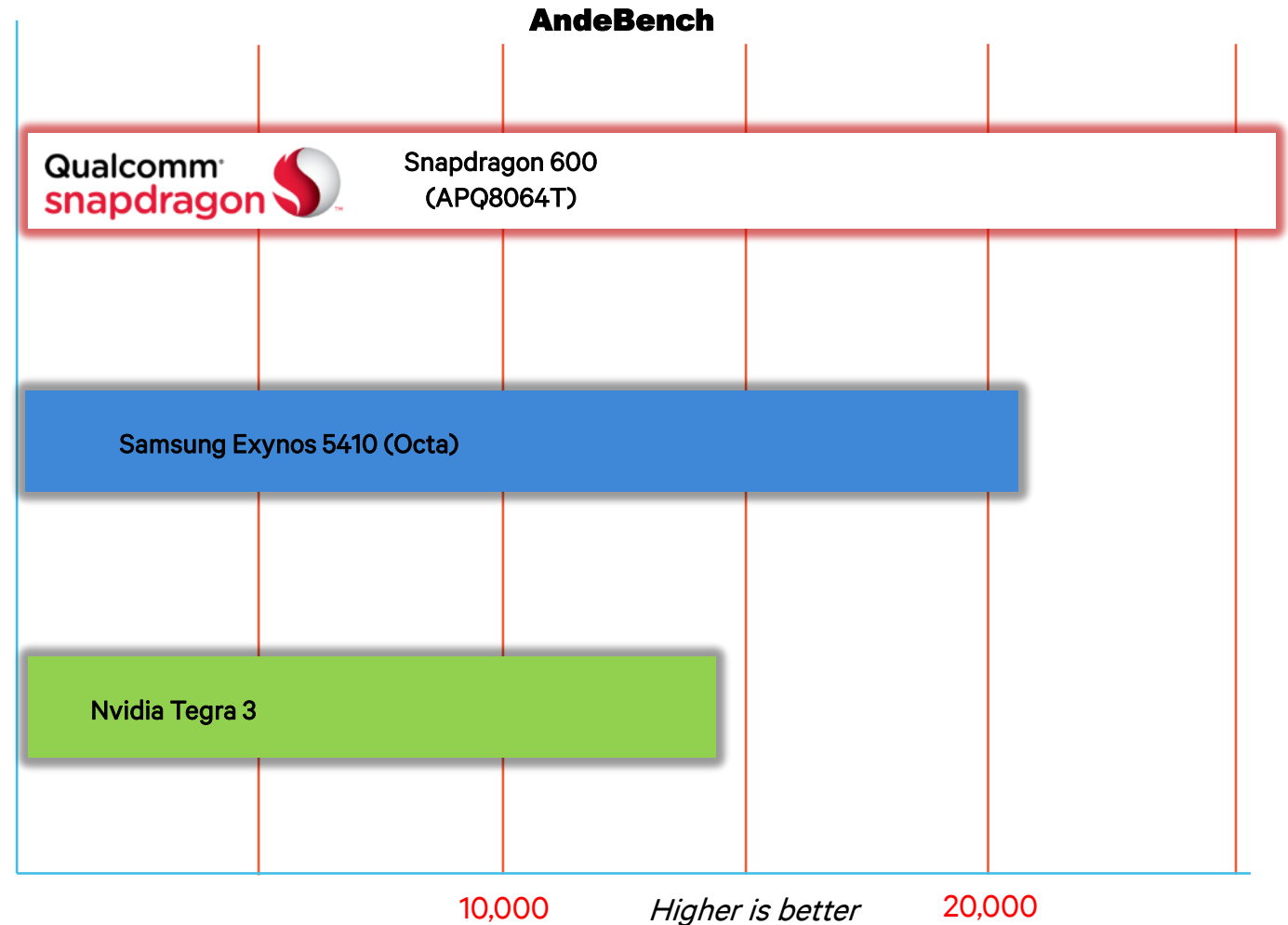


Outside of that stunning design, the star of the show is the [HTC] One's Snapdragon 600 (APQ8064T) chipset...”

– Brad Molen, Engadget

“...I have noticed that the LG Optimus G Pro is noticeably snappier (the user interface is always super-fluid) than virtually every S4 Pro systems that I had my hands on...all the Snapdragon S600 phones do run very smoothly.”

– Hubert Nguyen, Übergizmo



Source : Übergizmo by Hubert Nguyen 3/3/13, <http://www.ubergizmo.com/2013/03/lg-optimus-g-pro-benchmarks/>

Source : CNET by Lynn La 3/11/13, http://reviews.cnet.com/cell-phones/lg-optimus-g-pro/4505-6454_7-35615393-2.html

Source : Engadget by Brad Molen 3/12/2013, <http://www.engadget.com/2013/03/12/htc-one-review>

CPU Performance

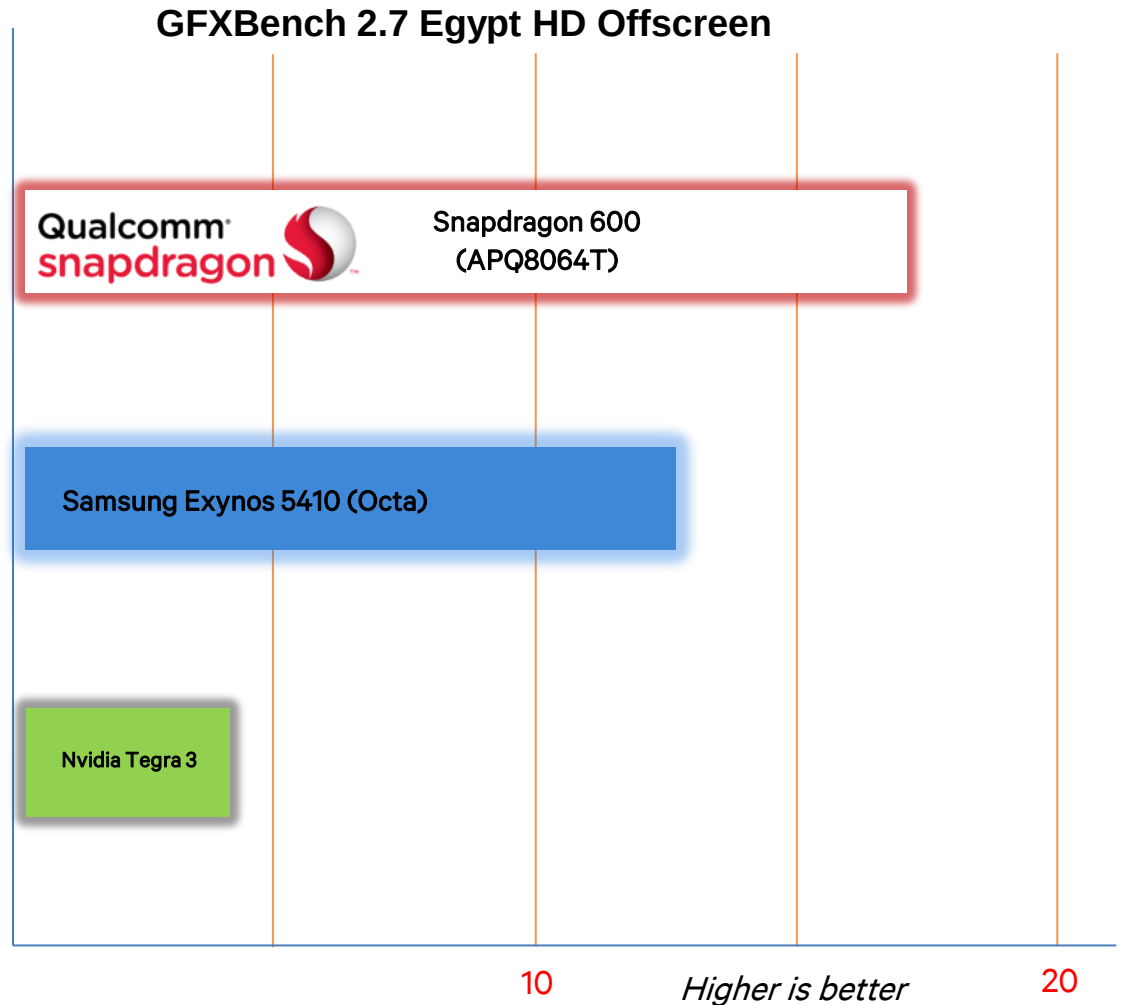


*“During my time playing the graphics-intensive game Riptide GP, there was no stuttering or unexpected shutdowns with the app. **Graphics ran swiftly, with a high frame rate, and the phone was responsive to my slight movements.**”*

– Lynn La, c|net

*“It runs buttery smooth and the screen is quite **responsive**. We strained our eyes looking for any sort of lag with no success and the **graphics in games** like Shadowgun, Asphalt 7, Real Racing 3 and Riptide **are as quick and detailed as we've come to expect with high-performance phones, if not just a little bit more so.**”*

– Brad Molen, Engadget



Source : Engadget by Brad Molen 5/22/13, <http://www.engadget.com/2013/05/06/samsung-galaxy-s4-octacore-review/>

Source : Engadget by Brad Molen 3/12/2013, <http://www.engadget.com/2013/03/12/htc-one-review>

Source : Ubergizmo by Hubert Nguyen 3/3/13, <http://www.ubergizmo.com/2013/03/lg-optimus-g-pro-benchmarks/>

CPU Performance



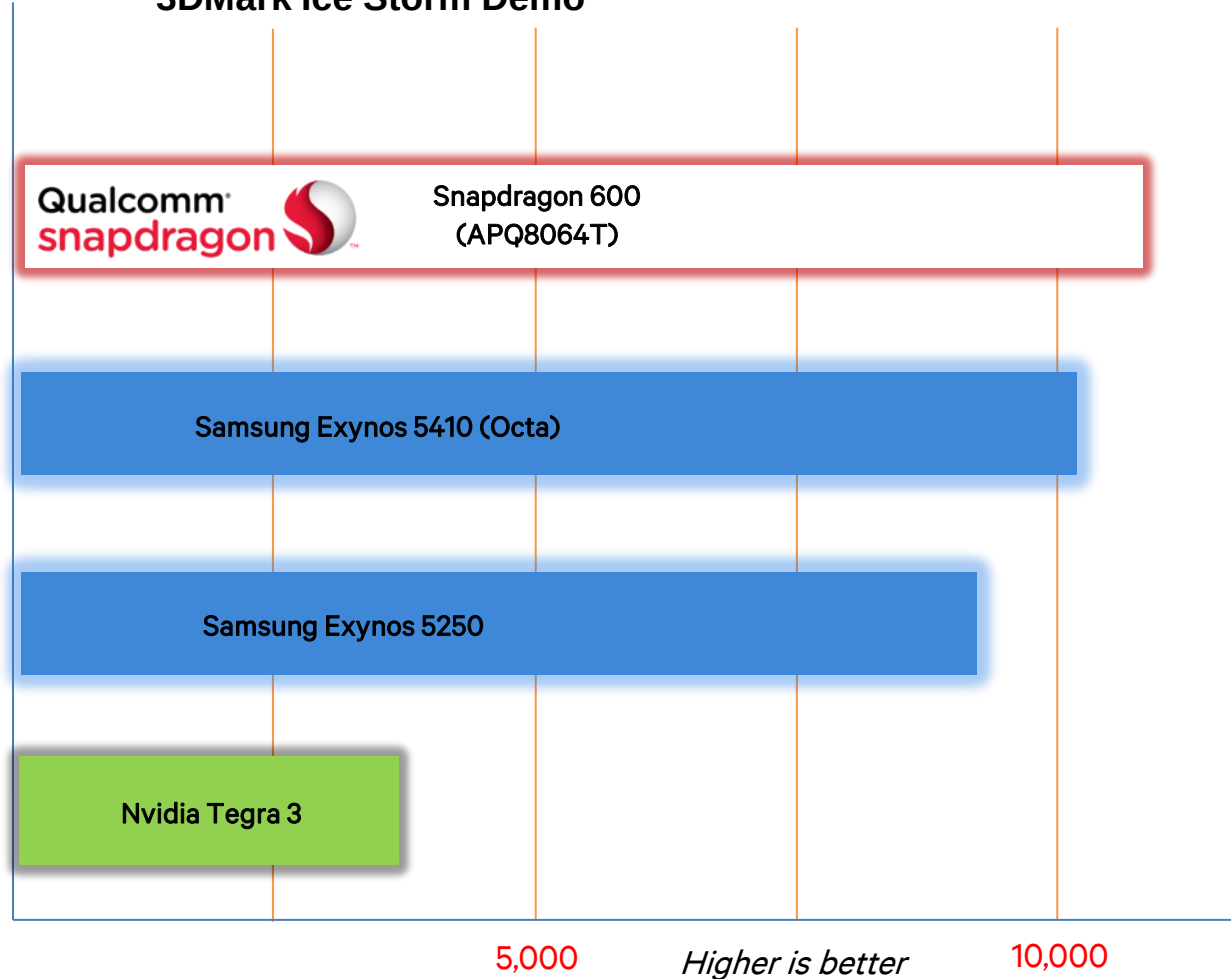
“...the Snapdragon 600 is the strongest processor on the market, and the benchmarks -- as you'll see in the chart below -- indicate a solid improvement over the S4 Pro chip.”

– Brad Molen, Engadget

...I have noticed that the LG Optimus G Pro is noticeably snappier (the user interface is always super-fluid) than virtually every S4 Pro systems that I had my hands on...all the Snapdragon S600 phones do run very smoothly.”

– Hubert Nguyen, Übergizmo

3DMark Ice Storm Demo

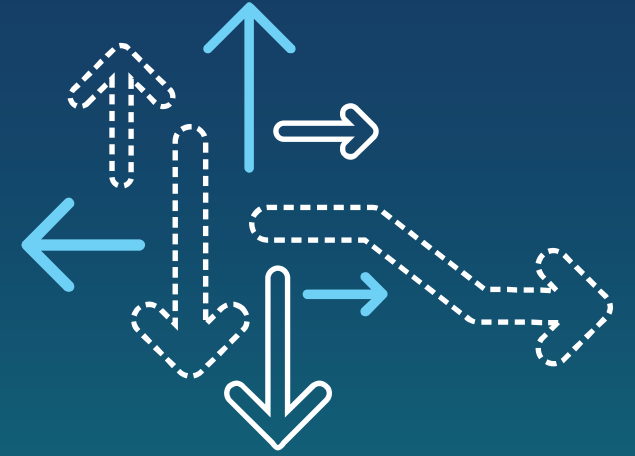


Source : Übergizmo by Hubert Nguyen 3/3/13, <http://www.ubergizmo.com/2013/03/lg-optimus-g-pro-benchmarks/>

Source : AnandTech.com by Anand Shrimpi 4/3/13, <http://www.anandtech.com/show/6875/3dmark-for-android-performance-preview>

Source : Engadget by Brad Molen 5/22/13, <http://www.engadget.com/2013/05/06/samsung-galaxy-s4-octacore-review/>

Qualcomm® Snapdragon™ 400



Samsung Galaxy S4 Mini Review

Snapdragon 400

“三星GALAXY S4 mini本地自带的浏览器给我们带来的网页浏览体验也很不错，载入速度快，上下滚动屏幕的时候也很流畅，缩放、图片载入都不会有卡顿，总体来讲还是很不错的。”

– 毛文婷, Zol.com.cn

“The default browser in the Samsung Galaxy S4 mini brings us good browsing experience, loading speed is fast, rolling up and down is smooth and pinching and image loading shows no sign of latency, the overall experience is great.”

– WenTing Mao, Zol.com.cn

旗舰机精简版
三星GALAXY S4 mini评测



MSM8930AB
Adreno 305

“三星GALAXY S4 mini在目前是比较少见的小尺寸手机，但这并不能说是底端、或者入门级别的产品。虽然屏幕分辨率与三星GALAXY S4之间的差异比较明显，但在其他方面，包括功能、界面、多媒体体验、拍照等来看，仍旧是能够满足大多数用户日常使用需求的产品，或者说是一款从配置到功能都非常主流的产品。”

– 毛文婷, Zol.com.cn

“The Samsung Galaxy S4 mini is a small size display smartphone that is relatively rare these days but this does not mean that this is a low-end entry level smartphone. Although the screen resolution is obviously different comparing to the S4, other functionalities like interface, multimedia experience and imaging will fulfill most consumer’s everyday use or we can say that this is a smartphone with mainstream specs and functions.

– WenTing Mao, Zol.com.cn



	Antutu 3.4	Quadrant 2.0	Linpack Single/Multi thread	GLBenchmark Egypt 2.5 HD (fps)	Basemark ES 2.0 Taiji	Vellamo 2.0
Benchmark Scores	14,542	7,217	173.209/388.633	17	46.53	2,130

HTC One Mini Review

“Underneath the screen, there's a dual-core, 1.4GHz Snapdragon 400 processor (another component that made an appearance in the HTC First), along with 1GB of RAM and 16GB of built-in storage. Given that the One mini is completely sealed, there's no opportunity to expand storage through a microSD card, but it's a pretty respectable chunk of storage for a phone below the flagship level.

- Mat Smith, Engadget 7/30/2013

Snapdragon 400



MSM8930AB
Adreno 305
HTC Sense 5

“The HTC One mini is the most appealing non-flagship smartphone we’ve seen in a while. And that’s saying a lot: there are more choices than ever, with recent screen and processor improvements now adding incremental improvements across the board. ”

“The One mini is a beautiful phone that feels and often handles like a top-tier model, even if it isn’t quite as classy as the One flagship.”

– Mat Smith, Engadget 7/30/2013



	Antutu 3.2	Quadrant 2.0	SunSpider 1.0 (ms)	GFXBenchmark T-Rex 2.7 HD Offscreen (fps)	CF-Bench	Vellamo 2.0
Benchmark Scores	10,048	5,200	1,442	15	6,543	2,118

SunSpider: lower scores are better

Samsung Galaxy Mega 6.3 Review

Snapdragon 400

*“As much as we'd like to see the specs rival those found on the Galaxy S 4, Samsung didn't craft the Mega with the high-end buyer or power user in mind -- our guess is that the Korean manufacturer will pull out all the stops with the Note III for that particular demographic. That said, it still makes for a solid mid-range device: it wields a **1.7GHz dual-core Snapdragon 400 processor**, 720p LCD panel, 8MP rear camera, 3,200mAh battery, NFC, IR, MHL 2.0, 1.5GB RAM and numerous other notable specs listed in the table below.*

– Brad Molen , Engadget.com



MSM8930AB
Adreno 305
6.3 inch screen

“Given that the Mega shares some common software traits with the Galaxy S 4, while featuring a similar (yet higher-clocked) Snapdragon 400 chipset to the HTC First, we chose these two models for performance comparisons. **As you can see, it bests the First in nearly every category -- with most scores clearly showing the advantage in clock speed -- and only loses in Vellamo. Strangely enough, the Mega wound up with a better score in this same test than the Snapdragon 600-powered GS4, while the latter phone whooped its 6.3-inch cousin in every other category. Comparisons aside, the benchmarks give us a solid indication that you're not going to run into any workload-related problems on the Mega.**

– Brad Molen , Engadget.com



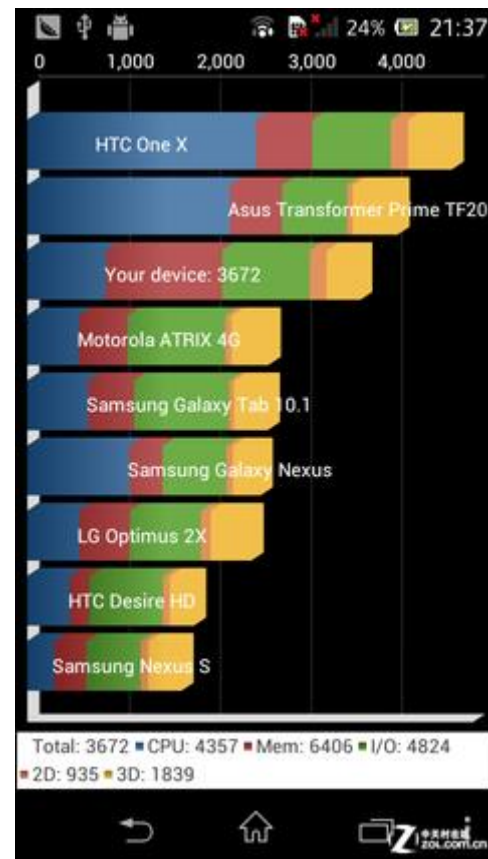
	Antutu 3.2	Quadrant 2.0	SunSpider 0.9.1 (ms)	GLBenchmark Egypt 2.5 HD Offscreen (fps)	CF-Bench	Vellamo 2.0
Benchmark Scores	13,627	7,192	769	16	13,342	1,993

Sony Xperia L S36h
MSM8930

1GB of RAM
Adreno 305 GPU

“MSM8x30 is the first dual-core SoC that integrates a LTE modem, targeting the mid-end market; the MSM8930 that is equipped in the Sony Xperia L S36h is based on two Krait CPU core, using 38nm process technology, QRD’s performance benchmark even shows that its performance is better than some quad-core processors and at the same time saves power.” –ZOL.cn

“MSM8X30为首款集成LTE调制解调器的单芯片双核处理器，定位于普及型市场；索尼Xperia L S36h所采用的MSM8930基于两颗Krait内核打造，采用28纳米工艺制程，QRD（高通参考设计）实测性能甚至好过目前部分四核处理器，并且还兼顾了功耗表现。” – ZOL.cn



Quadrant Advance : 3672





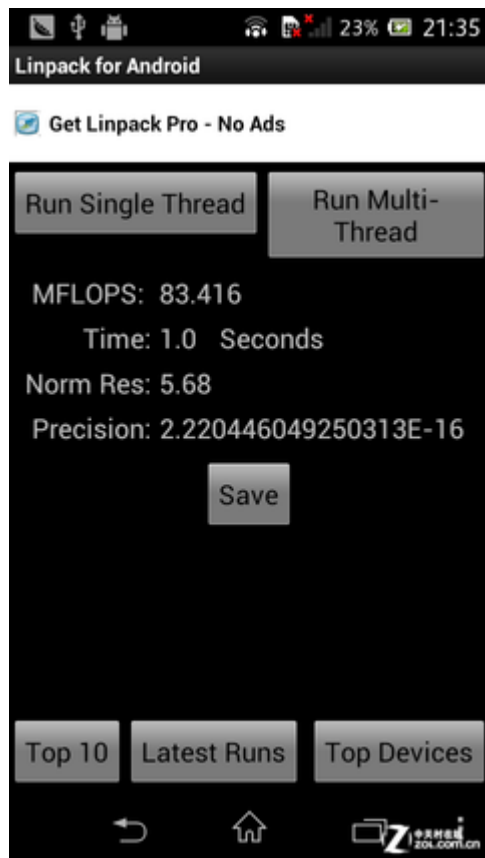
Vellamo 2 Metal : 404



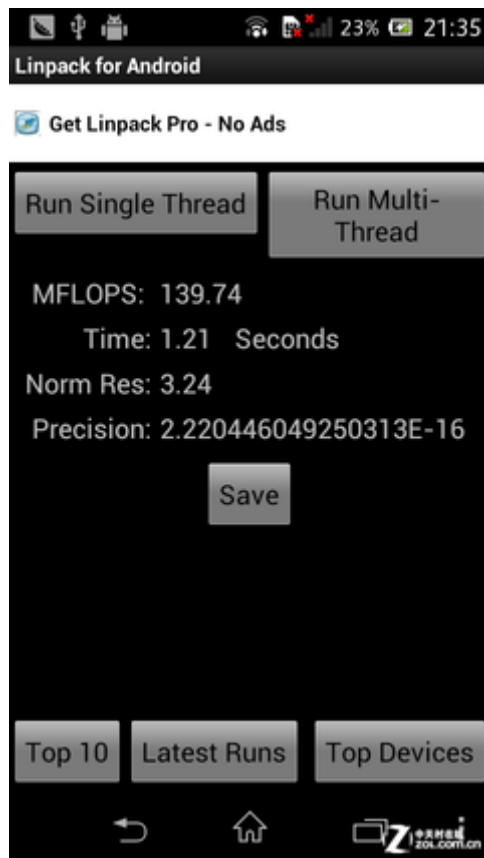
Vellamo 2 HTML 5 : 1559



Antutu v3.2.1: 9357



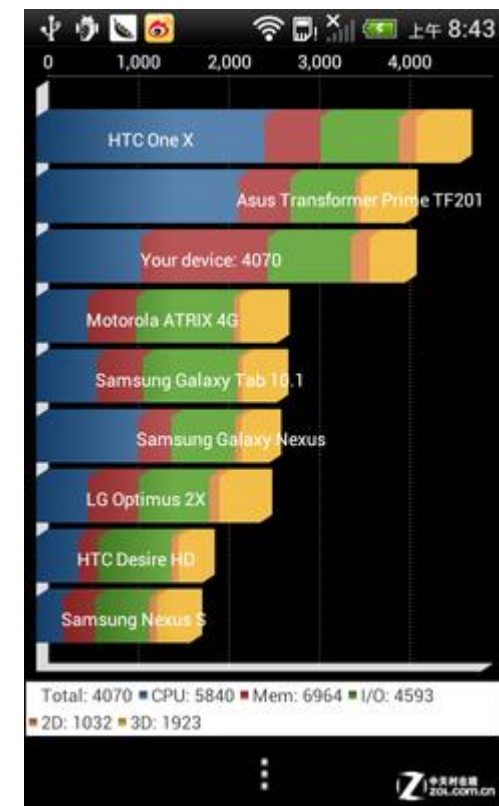
Linpack Single Thread : 83.416



Linpack Multi-Thread : 139.74



Basemark ES2.0 Taiji Free: 38.64 fps



Quadrant Advance : 4070



HTC One SV
MSM8930

1GB of RAM
Adreno 305 GPU

“HTC One SV is the new member of the One series, inherited Sense 4.1 from the One series, zero shutter from discrete GPUs;” And HTC One SC is equipped with the latest brand new Qualcomm MSM8x30 that they just announced Q4 last year, this platform brings flagship user experience to 1000RMB smartphones and the benchmark performance are incredible, it can stack up against many quad-core products.”-ZOL.cn

“HTC One SV是One系列的又一新兵，继承了One系列以来的Sense4.1界面、独立图像处理芯片所支持的99张连拍等基因；而且HTC One SV搭载了高通于去年第四季度所发布的全新处理器平台MSM8x30，该平台在为千元价格区间的智能手机带来旗舰级的用户体验，而且经过之前的实测性能非同小可，已经可以比拟许多四核产品。”-ZOL.cn



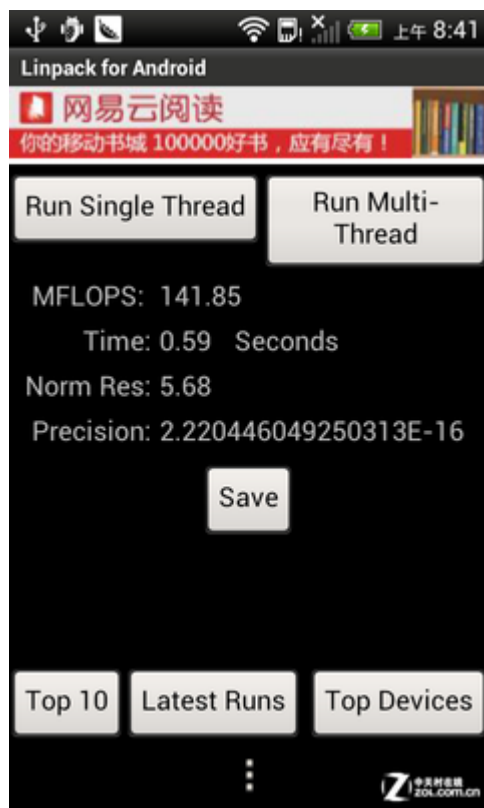
Vellamo 2 Metal : 1305



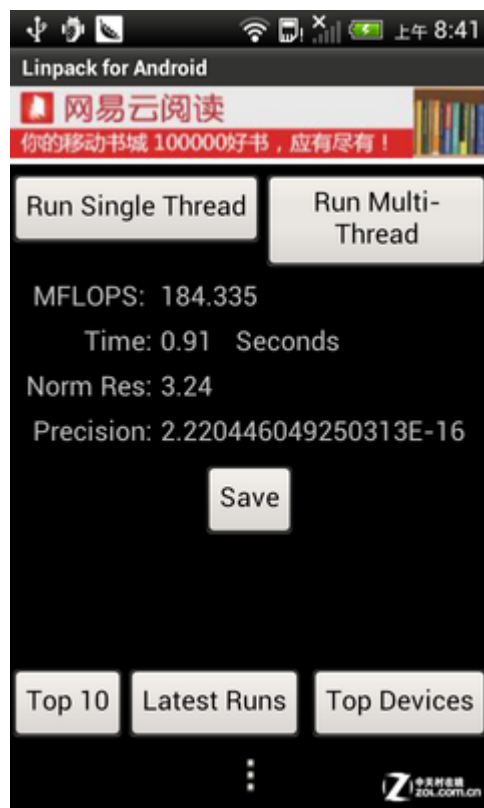
Vellamo 2 HTML 5 : 431



Antutu v3.1.1: 10668



Linpack Single Thread : 141.85

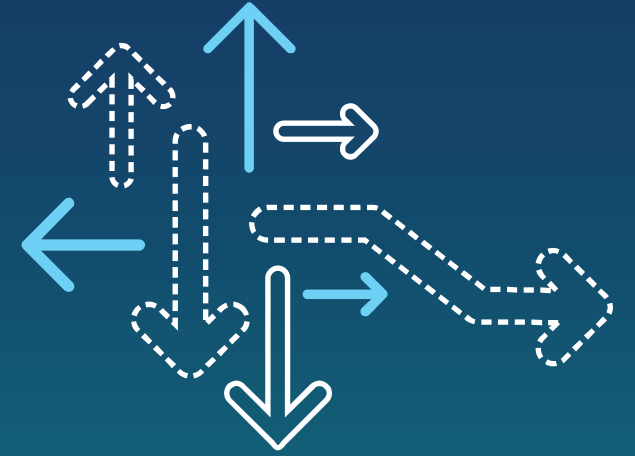


Linpack Multi-Thread : 184.335



Basemark ES2.0 Taiji Free: 41.78 fps

Qualcomm® Snapdragon™ 200



Samsung Galaxy Win (I-8552) Review

“对此我们测试了5段不同码率和封装格式的720p视频，从测试结果来看，三星I8552的表现可以用出色来形容，不仅完美的兼容MP4、MOV、MKV、AVI格式的文件，而且也可以实现完美的声画同步效果。值得一提的是，我们在播放视频时是可以选择画中画功能的，这样带来的好处是可以边播放视频边做其他的事情，算是实现了真正的多任务效果。”

– 汪洋, Zol.com.cn

“We tested 720p videos with 5 different bit rates and formats and from the results we can say that the Samsung I8552 delivers astonishing performance, not only it can perfectly support MP4, MOV, MKV, AVI but also synchronizes the video and audio very well. One more thing worth mention is that it supports picture-in-picture while playing videos which brings true multi-tasking support.”

– Yang Wan, Zol.com.cn

Snapdragon 200



骁龙200四核双卡小霸王
三星I8552评测

MSM8225Q
Adreno 203

“三星I8552这款主打快速体验的智能手机算是吸取了三星GALAXY系列产品的精华，融合了大屏、高配置、人性化功能等多方面优势，而且由于定位中端，因此在性价比方面也能符合更多用户的购机预算。”

– 汪洋, Zol.com.cn

“The Samsung I8552 absorbed the essence of the Galaxy series, a smartphone focusing on fast experience, combining a big display, high specs and user friendly functions, targeting as a mid-tier device which suits more consumers budget.”

– Yang Wan, Zol.com.cn



	Antutu 3.2	Quadrant 2.0	Linpack Single/Multi thread	GLBenchmark Egypt 2.5 HD (fps)	Basemark ES 2.0 Taiji	Vellamo 2.0
Benchmark Scores	9,282	3,630	42.426/94.863	10	20.76	1,234

HTC Desire 608t Review

“当然，HTC并没有忘记除旗舰机以外的中端机市场，不久前一款名为HTC 608t的手机现身HTC中国区官网，4.5英寸大屏、四核处理器及F/2.0大光圈等参数也是十分给力。”

– 常亮, Zol.com.cn

“Besides the high end market, HTC didn't forget the mid/low end market, a phone named HTC 608t appeared on their website, this is phone has a 4.5 inch big screen, quad-core processor and a F2.0 aperture, which is pretty powerful.”

– Liang Chang, Zol.com.cn

Snapdragon 200



MSM8225Q
Adreno 203
HTC Sense 5

“中端机型如果能够搭载品牌旗舰所具备的部分功能，将会对销量的推动产生积极的影响。作为2013年推出的一款中端机型，HTC毫不吝惜地将HTC One上具备的BlinkFeed缤纷聚合界面、Sense 5等元素应用在中端机型HTC 608t上面，势必使HTC 608t的品牌地位和使用体验得到进一步提升，这也是值得其它手机厂商学习的。”

– 常亮, Zol.com.cn

“If mid-tier devices can carry some features offered in higher tier products, it would greatly impact the number of sales. As a mid-tier product in 2013, HTC generously added features like Blinkfeed, Sense 5 to the HTC 608t, which brings the user experience and branding to the next level, this is something that other OEMs should learn from. “

– Liang Chang, Zol.com.cn



	Antutu 3.2	Quadrant 2.0	Linpack Single/Multi thread	GLBenchmark Egypt 2.5 HD (fps)	Basemark ES 2.0 Taiji	Vellamo 2.0
Benchmark Scores	11,200	5,320	48.291/91.27	10	21.43	1,606

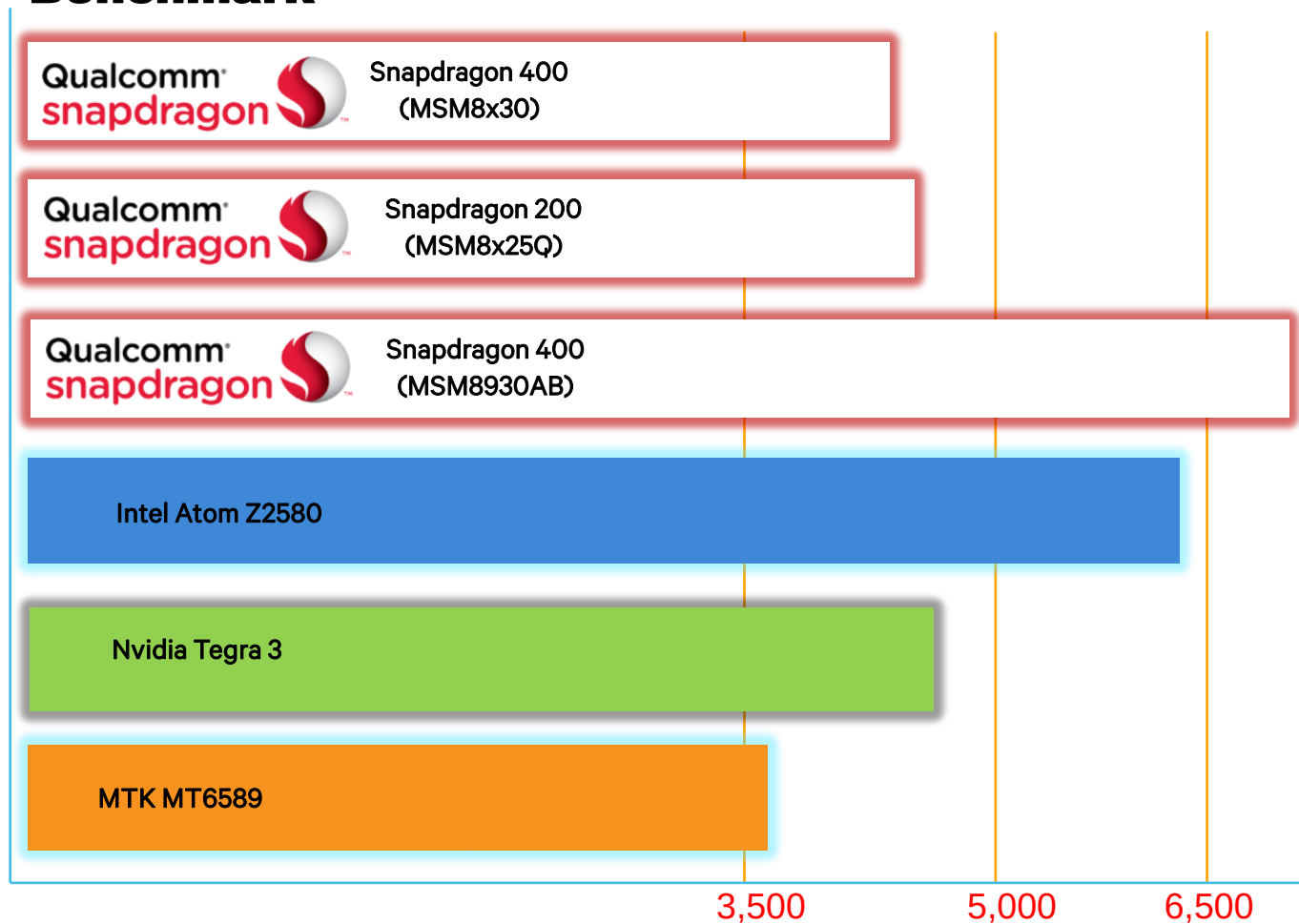
SoC Performance



"The Galaxy Mega mainly shows its mid-range status with its processing power, as it possesses a dual-core Qualcomm Snapdragon 400 (MSM8930AB). Granted, it takes advantage of a 1.7GHz clock speed and lower pixel count (when compared to today's 1080p flagships, at least), so you won't see much lag or delay with the majority of your work." - Engadget.com

"Samsung Galaxy Mega 系列硬件配置采用中端规格，6.3 的 1.7GHz 双核与 5.8 的 1.4GHz 双核在 Android 4.2 系统中运作顺畅。加上搭配 1.5GB RAM，基本操作与多任务切换没有遇到卡顿情况。" - Engadget.cn

Quadrant Advanced Benchmark



Source: mtksj.com;
http://info.139shop.com/files/2013/02/23/21010_3.htm
http://tech.sina.com.cn/mobile/n/2012-09-11/08567604933_2.shtml
<http://mobile.zol.com.cn/365/3653437.html>
<http://cn.engadget.com/2013/06/18/samsung-galaxy-mega-hands-on-tw/>

CPU Performance



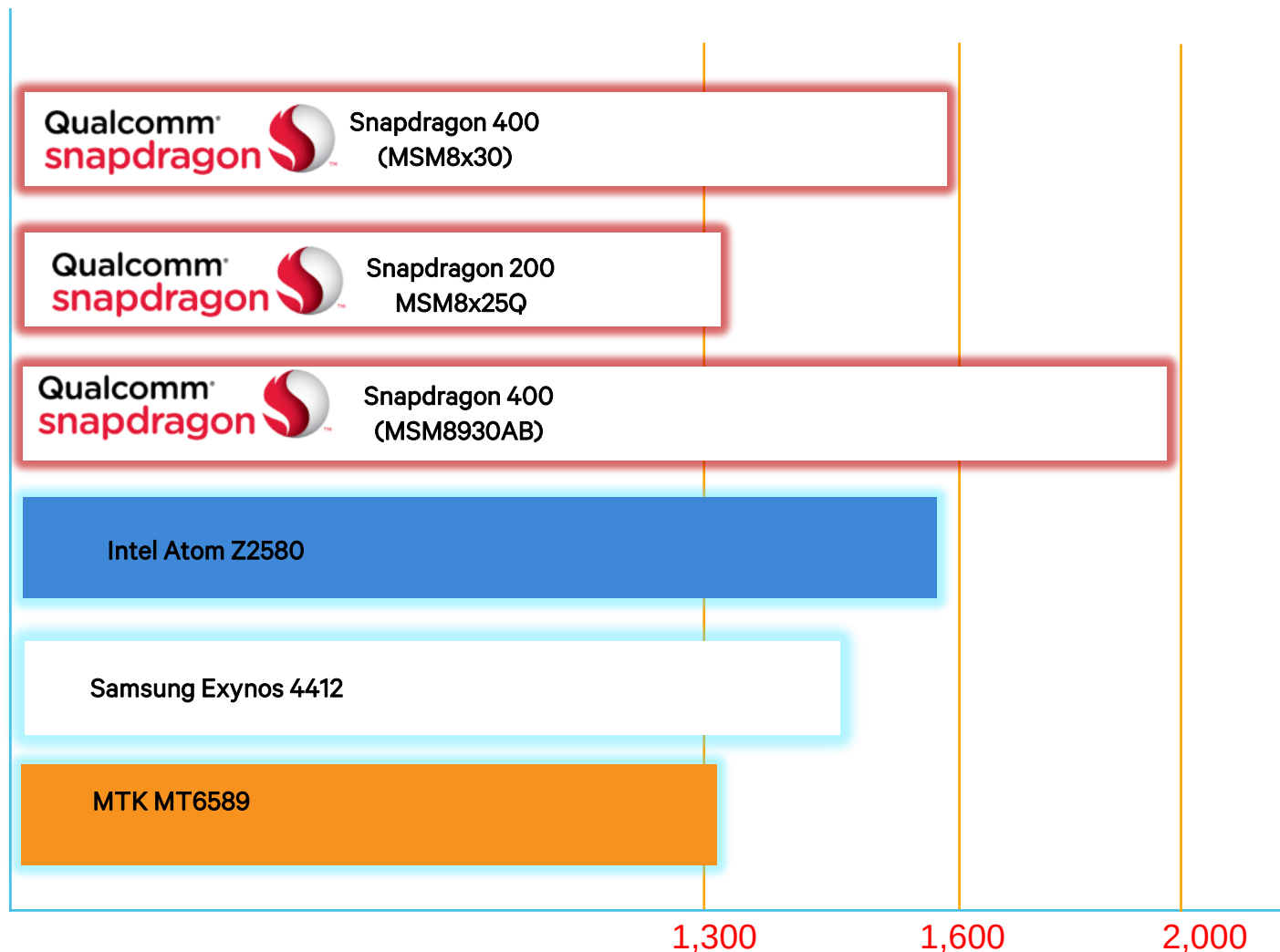
“The Samsung Galaxy Mega 6.3 China Mobile Version I9158 is equipped with a Qualcomm 1.7GHz dual-core processor, Adreno 305 GPU, supports up to 1.35MP camera and 1080p record/playback, it has 1.5GB of RAM and 8GB of ROM, supports external memory card up to 64GB, the overall specs are above average.”

-Pconline.com.cn

“三星GALAXY MEGA 6.3移动定制版I9158采用高通双核1.7GHz处理器，内置Adreno 305 GPU，最高支持1350万像素摄像头以及1080p的视频拍摄/播放。内存方面配备了1.5GB RAM和8GB ROM，最大支持64GB存储卡扩展，整体配置属于目前的中等偏上水平。”

-Pconline.com.cn

Vellamo 2 HTML5 Benchmark



Source: Engadget, 21cn.com, Qualcomm, Android Authority

<http://mobile.zol.com.cn/344/3444711.html>

<http://mobile.zol.com.cn/365/3653437.html>

http://mobile.pconline.com.cn/335/3352249_4.html

Graphics Performance – Adreno 305



GL Benchmark 2.5 Egypt HD



Basemark X(On Screen)



Basemark ES2.0 Taiji Free



Epic Citadel



Electopia



15 30 40 60 FPS

“在专门针对图形测试的部分当中再次印证了之前的结论，搭配 Adreno 305图形处理核心的HTC One SV在2D以及3D处理水平上面都要好于采用了PowerVR SGX544，每秒所产生的画面帧数常常两倍或者四倍于后者，对于大型游戏的爱好者来说这无疑是个非常不错的强项。” -ZOL.cn

“Using GPU benchmarks proved our previous conclusions, HTC One SV with the Adreno 305 GPU outperforms PowerVR SGX544 on 2D and 3D processes, fps are doubled or even quadrupled on the Adreno 305, for game enthusiasms this is a really good advantage.” -ZOL.cn

Qualcomm
snapdragon



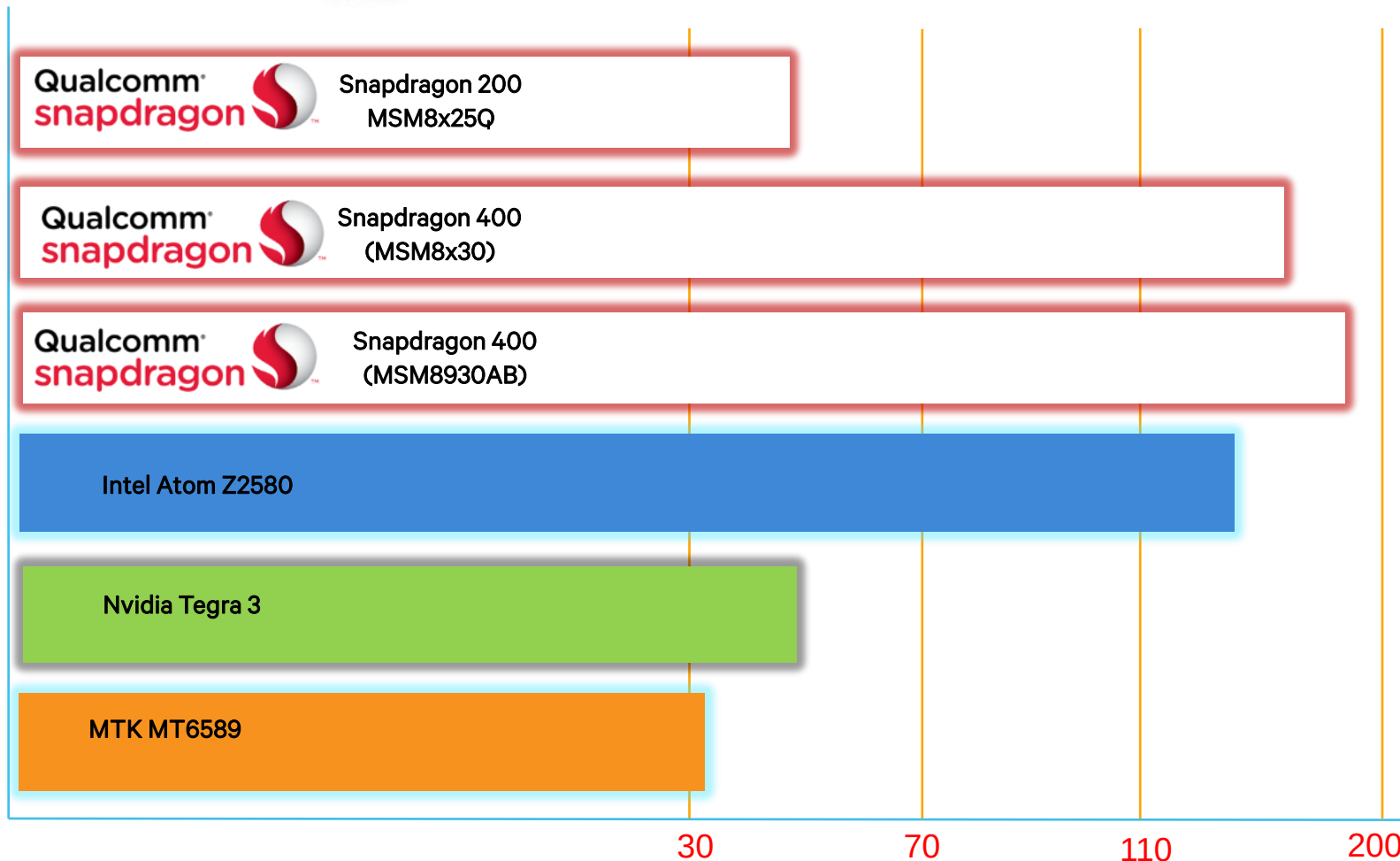
Snapdragon 400
(Adreno 305)

Competitor Quad A7

Source: ZOL.com, Flipbus, Qualcomm Internal
<http://mobile.zol.com.cn/354/3546977.html>
<http://goo.gl/F9qXp>

CPU Performance

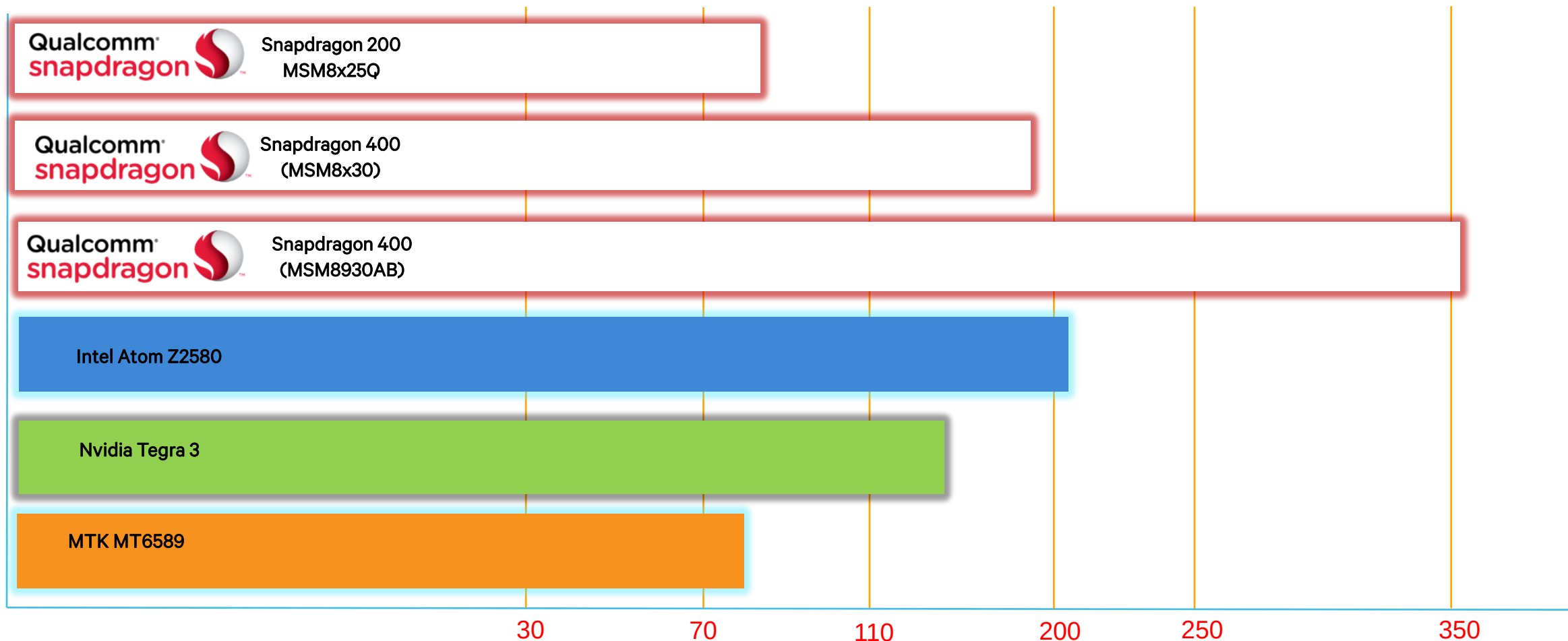
Linpack Single thread



Source: mtksj.com;
http://info.139shop.com/files/2013/02/23/21010_3.htm
http://tech.sina.com.cn/mobile/n/2012-09-11/08567604933_2.shtml
http://info.139shop.com/files/2013/02/17/20436_5.htm
<http://article.365.com/review/mxsiheonexw6--2208487--5.shtml>
<http://mobile.zol.com.cn/365/3653437.html>

CPU Performance

Linpack Multi-thread



Source: mtksj.com;
http://info.139shop.com/files/2013/02/23/21010_3.htm
http://tech.sina.com.cn/mobile/n/2012-09-11/08567604933_2.shtml
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<http://article.365.com/review/mxsiheonexv6--2208487--5.shtml>
<http://mobile.zol.com.cn/365/3653437.html>

Coolpad 5890
MSM8x25Q

1GB of RAM
Adreno 203 GPU

“Overall, the hardware specs on Coolpad 5890 is notable, due to its entry level positioning, we cannot expect it to compete with 3 or 4000 RMB quad-core phones. But in the 1000RMB phone market, Coolpad 5890’s performance is relatively good. These days the 1000 RMB phone market has become every OEM’s main battlefield, with its excellent hardware spec, Coolpad 5890 made a spot in the 1000RMB phone market.” - ZOL.cn

总体而言，酷派5890的硬件水平还是可圈可点的，由于其入门级的定位，我们不能要求它与三四千元的四核手机拼跑分成绩。不过在千元级市场里，酷派5890的表现还是较为出色的。如今千元机市场已经成为各大手机厂商竞相争逐的主战场，酷派5890以其过硬的硬件实力，相信会在千元机市场稳稳占据一席之地。 - ZOL.cn



Quadrant Advance : 4480





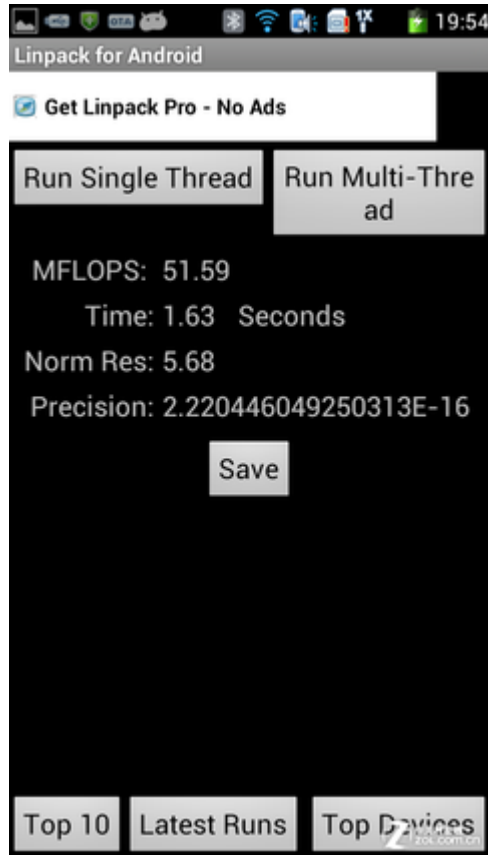
Vellamo 2 Metal : 387



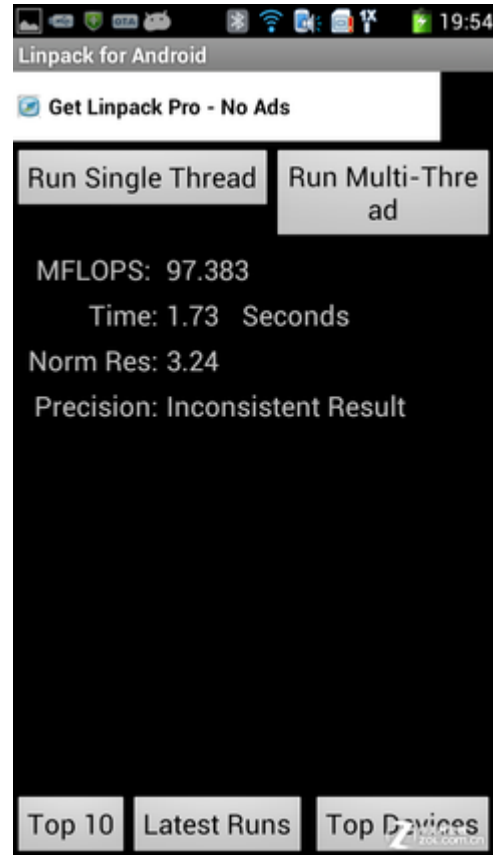
Vellamo 2 HTML 5 : 1202



Antutu v3.2.2: 10847



Linpack Single Thread : 51.59



Linpack Multi-Thread : 97.383



Basemark ES2.0 Taiji Free: 19.89 fps



Quadrant Advance : 4756

K-touch U86
MSM8x25Q

1GB of RAM
Adreno 203 GPU

"As a 1234 RMB quad-core smartphone, the performance of the K-touch U86 is good. It's a great choice for consumers that likes quad-core phones but not have a lot of budget and the overall performance of the K-touch U86 can stack up against the high-end quad-core phones, as a daily phone, gaming phone, the K-touch U86 will get the work done." - PConline

*"天语大黄蜂Kiss作为一款1234元售价的千元**四核智能手机**，其表现都非常不错。它的作用是很明显的，能够为喜欢四核手机，但预算又不多的朋友提供了一个新的选择，而且天语大黄蜂Kiss的综合表现一点也不逊色于高端的四核手机，作为日常应用，游戏等，天语大黄蜂Kiss都能够胜任。" - PConline*

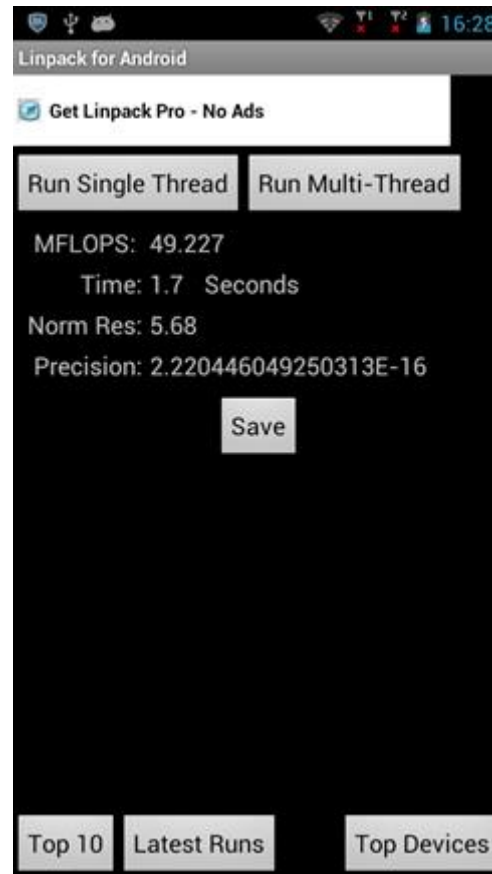
K-touch U86 MSM8x25Q



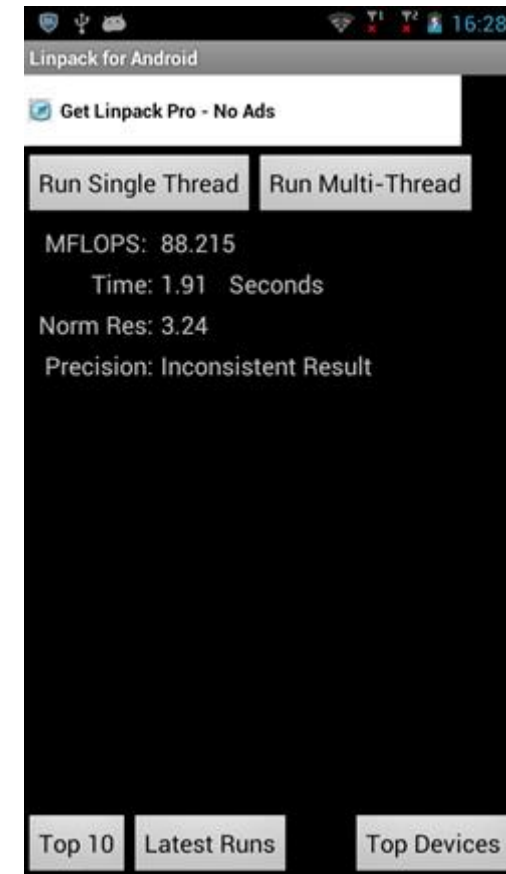
Vellamo 2 HTML5 : 1327
Metal : 402



Antutu v3.1.1: 10908



Linpack Single Thread : 49.227



Linpack Multi-Thread : 88.215

Little Chili quad-core
M1
(MSM8225Q)

1GB of RAM
Adreno 203 GPU

"It's not difficult to see that LA-M1 has a satisfying overall performance, can easily reach 10k in Antutu. Overall performance is better than the K-touch Kiss and in terms of system level, display and benchmark , it stands head-to-head with other quad 1000RMB phones, the 699 price is a killer weapon too. - 139shop.com

从以上跑分不难看出，北斗小辣椒四核M1整体成绩令人满意，安兔兔跑分也轻松破万，综合表现高于同为MSM8225Q四核处理器的天语大黄蜂Kiss不说，对比其他几款千元四核机型，北斗小辣椒四核M1在系统、屏幕参数、主摄像头以及测试成绩上也是旗鼓相当，699元的价位也足以绝杀对手。-139shop.com



中关村在线
ZOL.COM.CN

	Antutu v3.11	Quadrant Advance	Vellamo 2 Metal	Vellamo 2 HTML5	Nenamark 2
Benchmark Scores	11194	4712	404	1293	39.4

SoC Performance

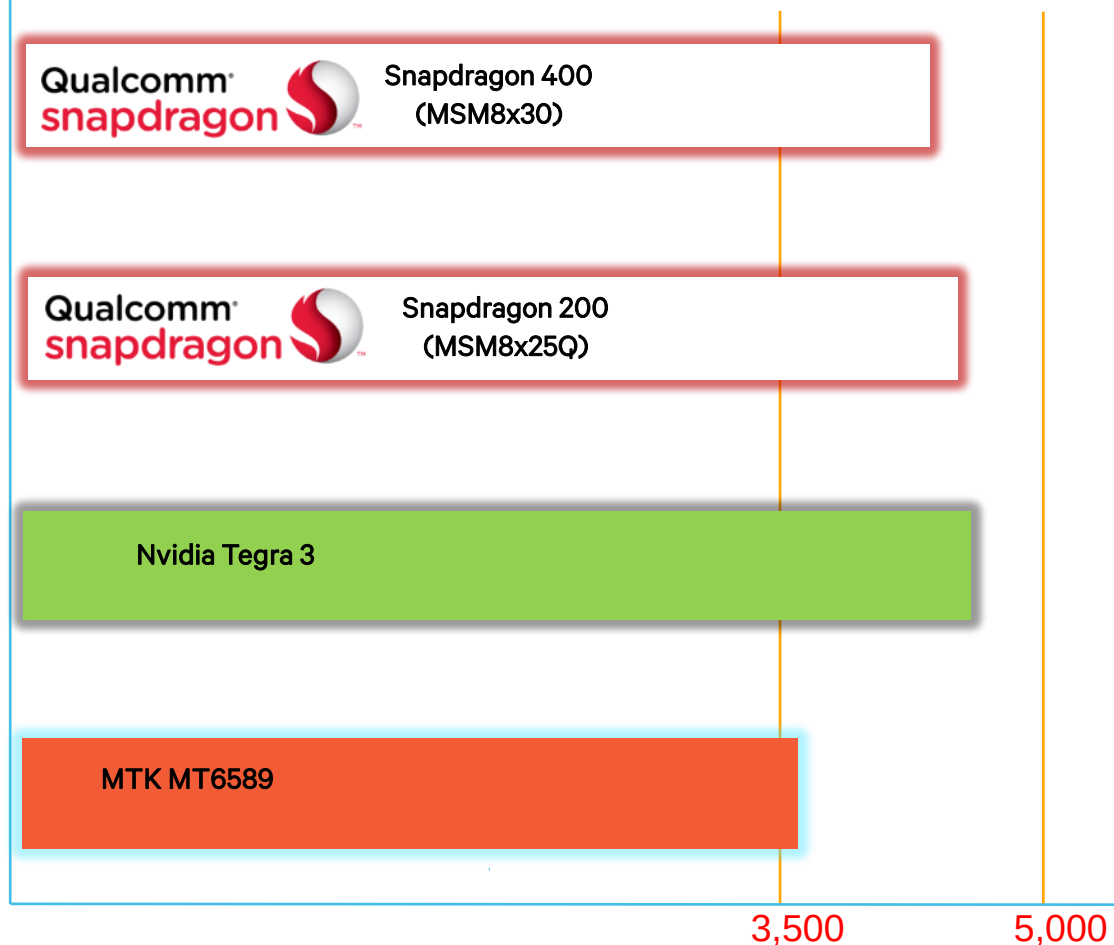


“The GPU benchmark proves our previous consumptions. The HTC One SV loaded with the Adreno 305 GPU is better in 2D and 3D comparing to the PowerVR SGX544, fps are twice or four times better. For the premium game lovers this is a great advantage.”-ZOL.cn

“在专门针对图形测试的部分当中再次印证了之前的结论，搭配Adreno 305图形处理核心的HTC One SV在2D以及3D处理水平上面都要好于采用了PowerVR SGX544，每秒所产生的画面帧数常常两倍或者四倍于后者，对于大型游戏的爱好者来说这无疑是个非常不错的强项。”-ZOL.cn

Snapdragon 600
(APQ8064T)

Quadrant Advanced Benchmark



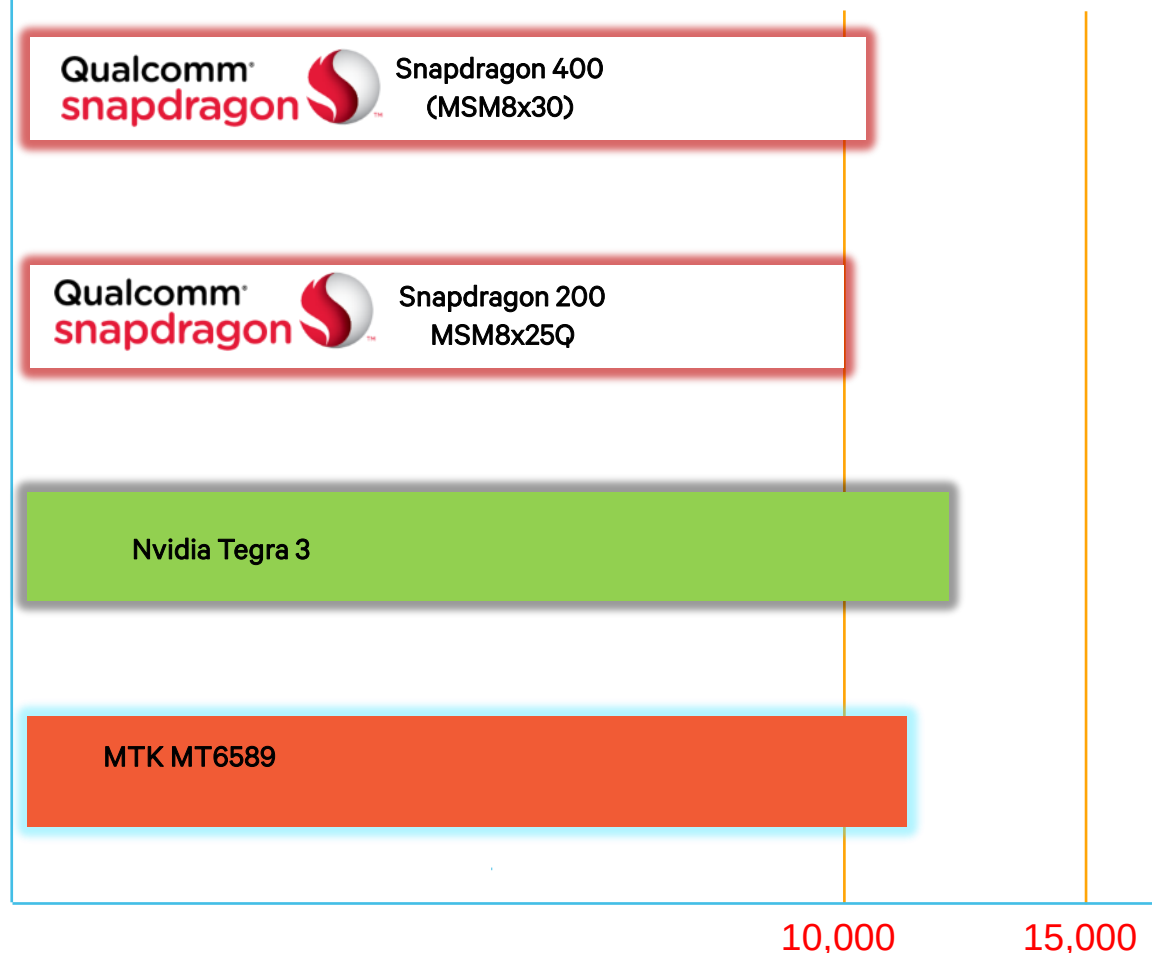
SoC Performance



“The HTC One SV, equipped with the dual-core MSM8x30 processor has scored 10k in Antutu, comparing to 2012 overall dual-core products, its has a huge improvement; If at a good price range, this is no doubt a product that has good cost and performance value which satisfies overall consumers. Of course the spotlight is on the Adreno 305 GPU, comparing to the PowerVR SGX544 Mp3, it has a lot of advantage on benchmarking, which will benefit in gaming experience. ” –ZOL.cn

“如今搭配**双核**MSM8x30**处理器**方案的HTC One SV也已经达到了安兔兔万分的水平，相比2012年普遍的双核**产品**有了质的提升；如果**价格合适**的话无疑是非常具备性价比、同时性能又足够普通用户使用的产品。当然亮点还是在于Adreno 305的图形处理性能方面，相对于对样品PowerVR SGX544 **MP3**来说从测试结果上还是有很大优势的，无疑会在游戏体验当中大有作为。” –ZOL.cn

Antutu 3.0.3 Benchmark



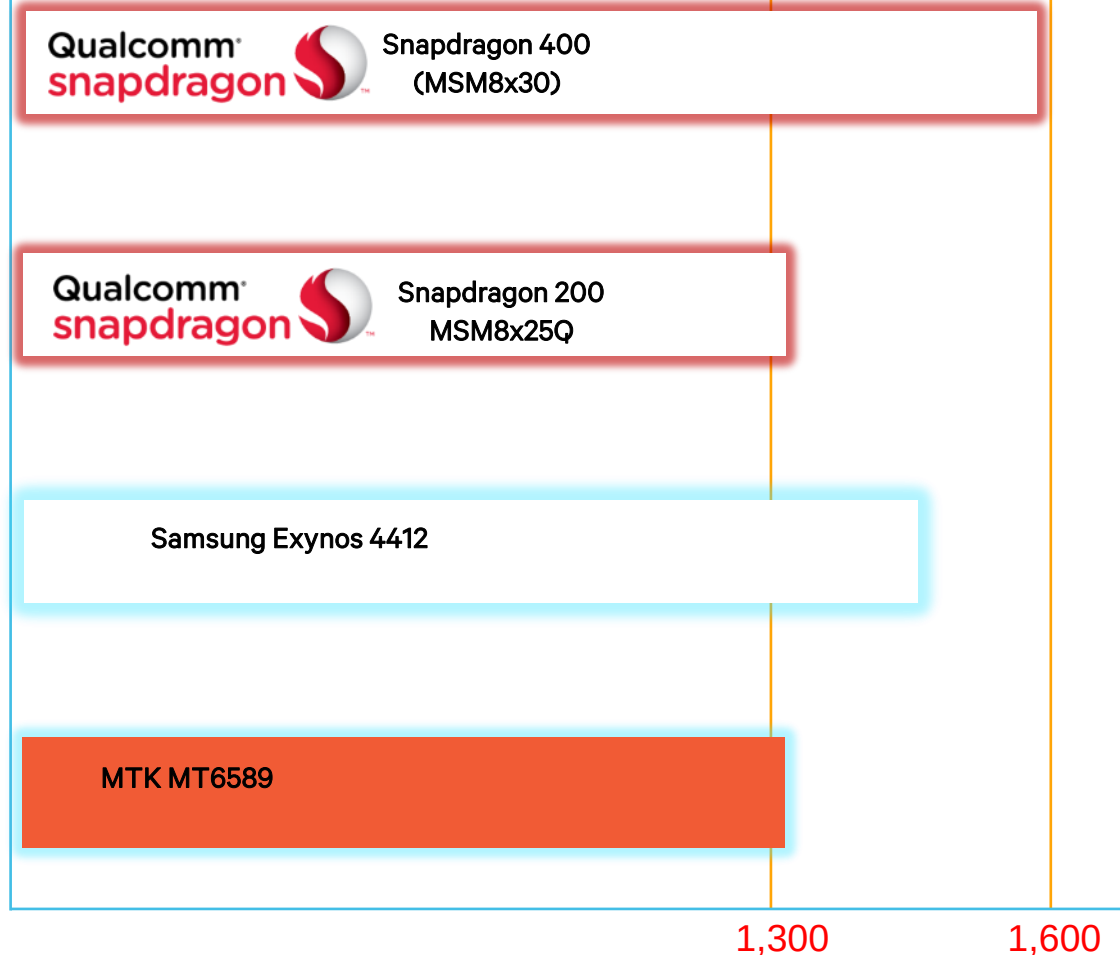
CPU Performance



“The performance of the MSM8930 shouldn’t be underestimated, the overall score 12048 is leading in all dual-core CPUs ; Linpack scores can easily outscore quad-core products, HTML 5 in Vellamo also shows great browsing capabilities, the performance of the Adreno 305 is notable as well.”
– ZOL.cn

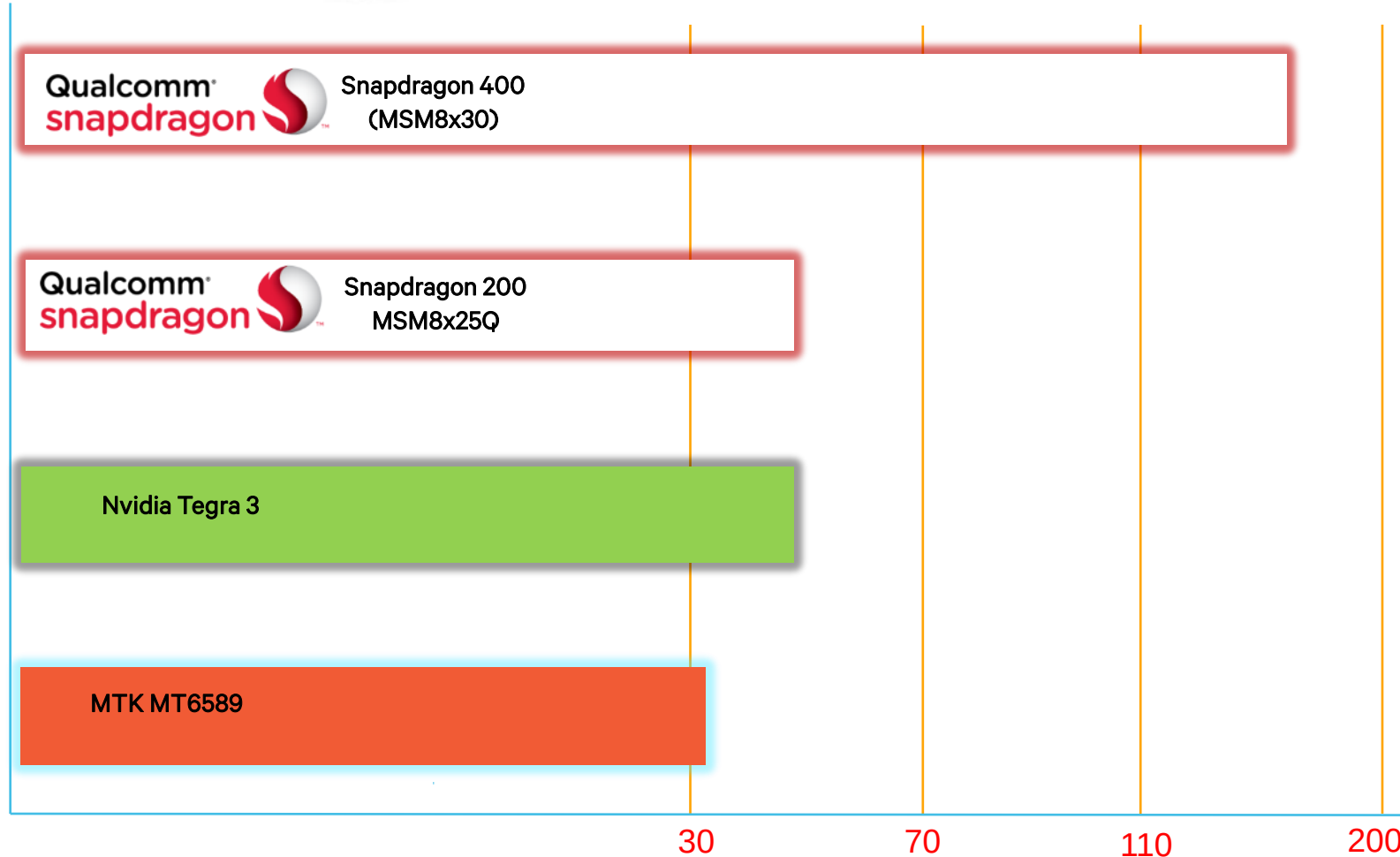
“这款MSM8930的表现不容小觑，12048的综合分数在目前的双核领域应该来说没有敌手；Linpack单线程多线程测试当中能够轻易盖过不少四核产品，Vellamo的HTML5测试项也彰显了不俗的网页浏览性能，与此同时Adreno 305的表现也很抢眼”-ZOL.cn

Vellamo 2 HTML5 Benchmark



CPU Performance

Linpack Single thread



Source: mtksj.com;

http://info.139shop.com/files/2013/02/23/21010_3.htm

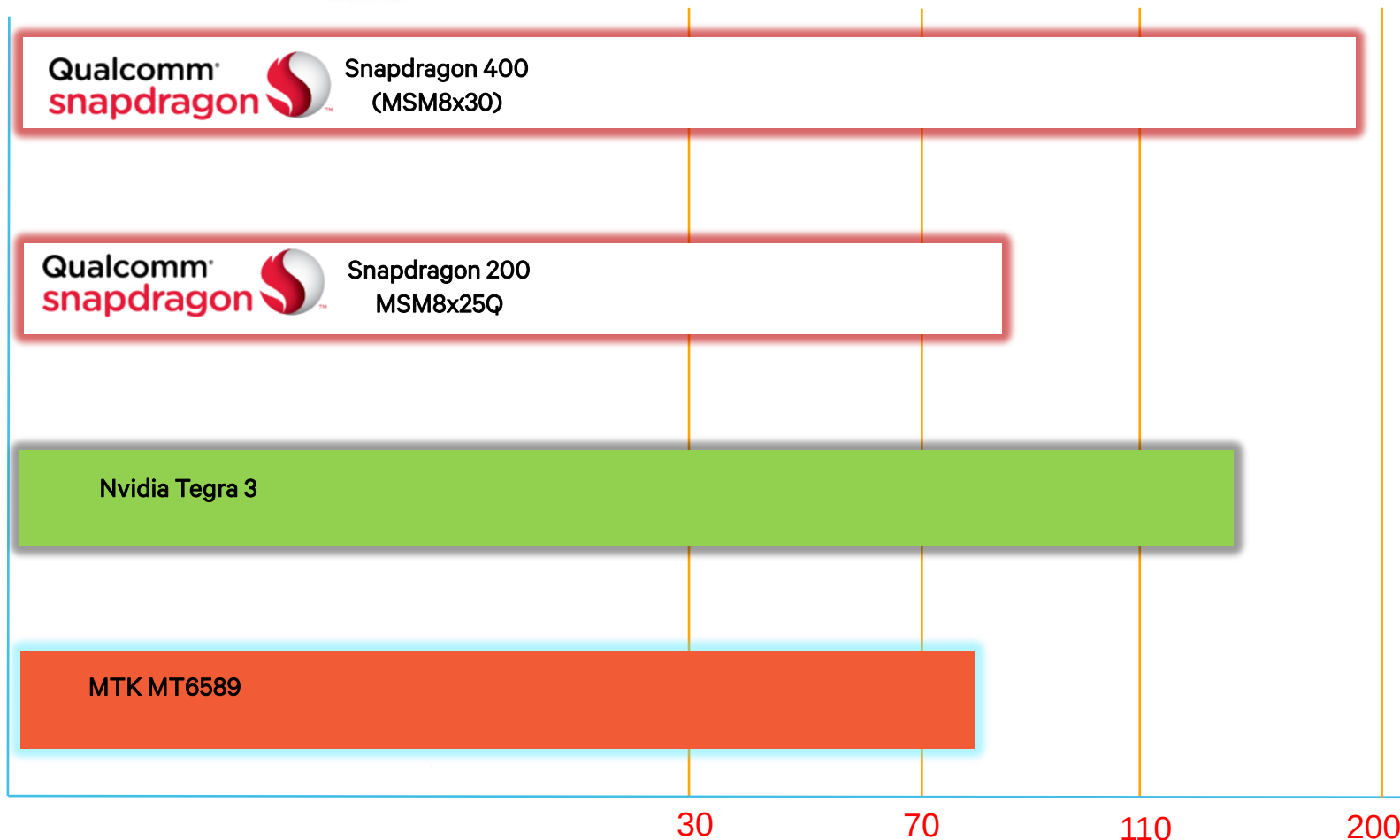
http://tech.sina.com.cn/mobile/n/2012-09-11/08567604933_2.shtml

http://info.139shop.com/files/2013/02/17/20436_5.htm

<http://article.365.com/review/mxsiheonexw6--2208487--5.shtml>

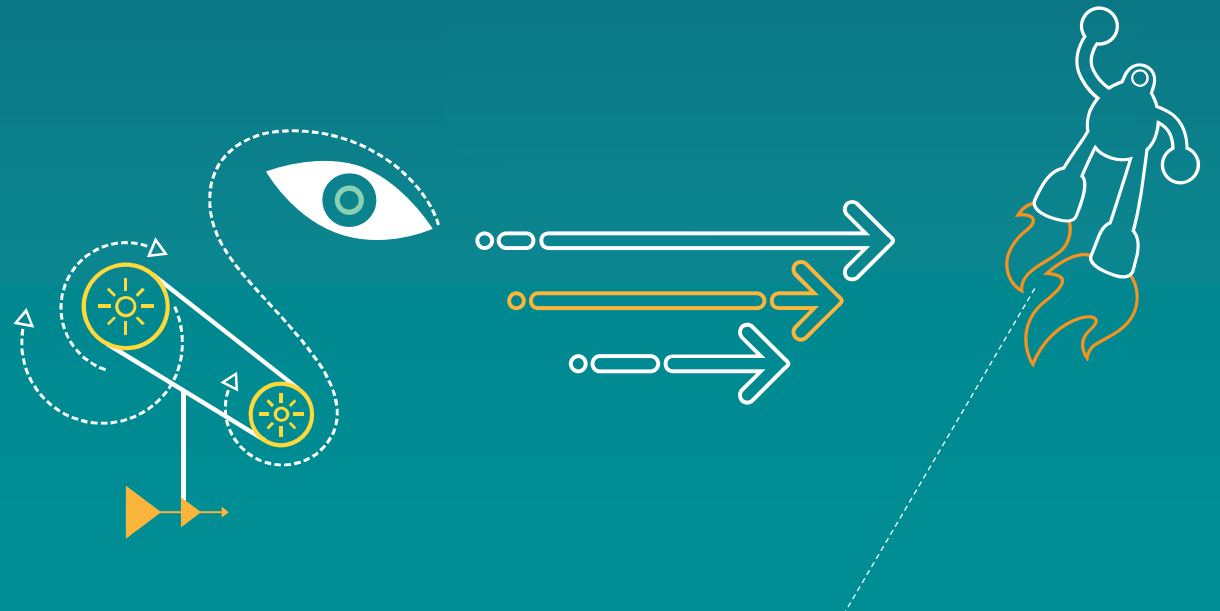
CPU Performance

Linpack Multi-thread



Source: mtksj.com;
http://info.139shop.com/files/2013/02/23/21010_3.htm
http://tech.sina.com.cn/mobile/n/2012-09-11/08567604933_2.shtml
http://info.139shop.com/files/2013/02/17/20436_5.htm 85
<http://article.365.com/review/mxsiheonexw6--2208487--5.shtml>

Benchmarking News



Antutu Benchmark Myths

Why Intel scores so high on Antutu?

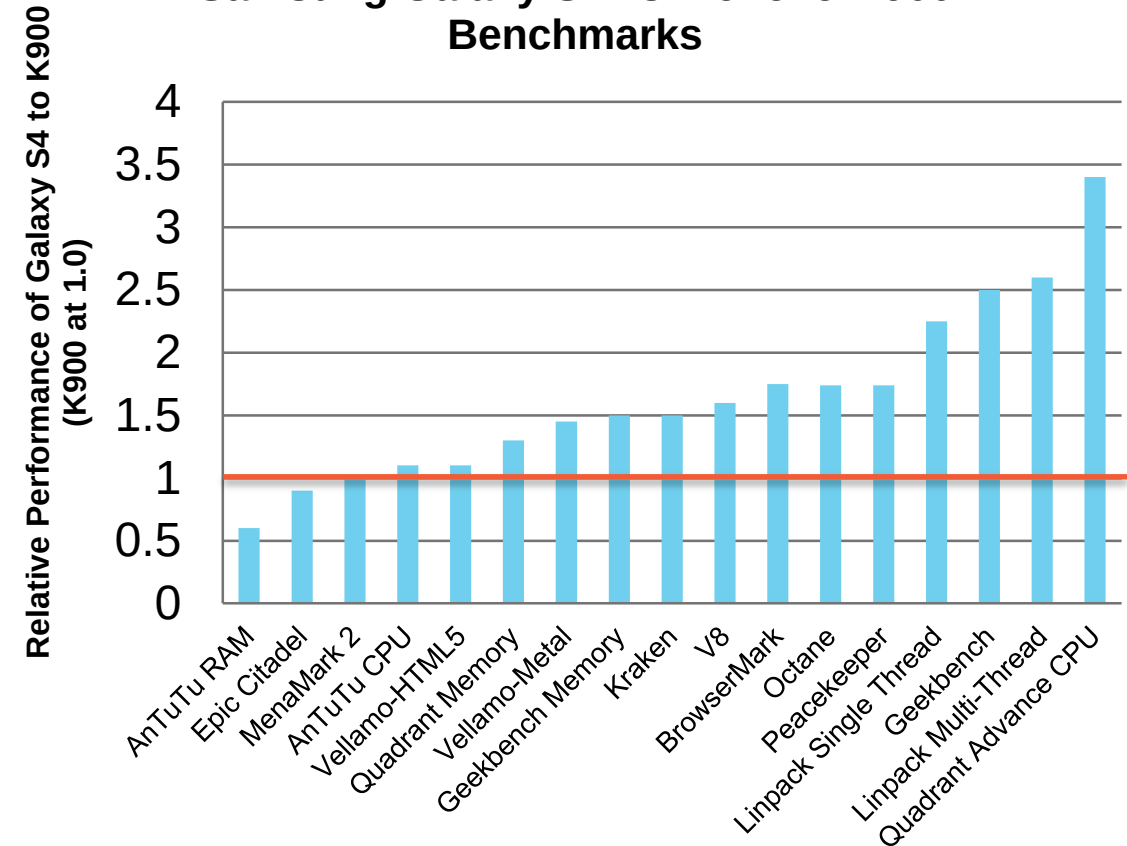
“The results demonstrate a significant advantage for the Intel processor relative to the Samsung processor, but only in the AnTuTu benchmark, and only in one of the AnTuTu benchmark tests. This raises several questions. The first question is why do the results of these benchmarks vary so greatly?”

“The AnTuTu RAM benchmark shows almost double the performance advantage for the Intel processor, while the Quadrant and Geekbench memory benchmarks show the Samsung processor with up to a 50 percent performance advantage, and the Geekbench stream benchmark shows the Samsung processor with nearly twice the performance advantage. Similarly, the AnTuTu CPU benchmark shows only a 20 percent advantage for the Samsung processor, but the other CPU-centric benchmarks (Quadrant, Geekbench, and Linpack) show a 2.3x or greater advantage for the Samsung processor.”

–Jim McGregor, EE Times ,7/10/2013



Samsung Galaxy S4 vs. Lenovo K900 Benchmarks

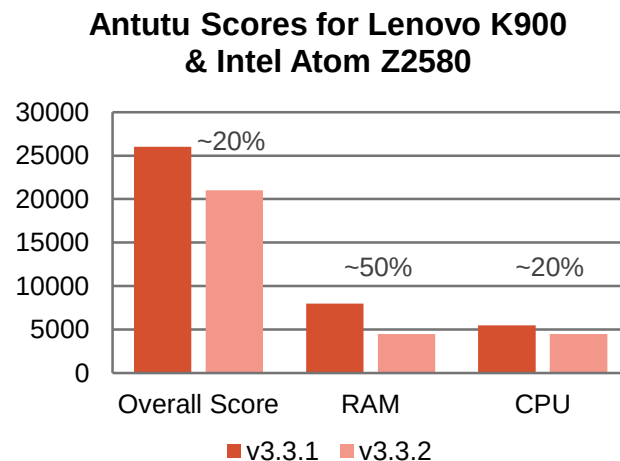


Antutu Benchmark Myths

ARM Beats Intel With Revised AnTuTu Benchmark

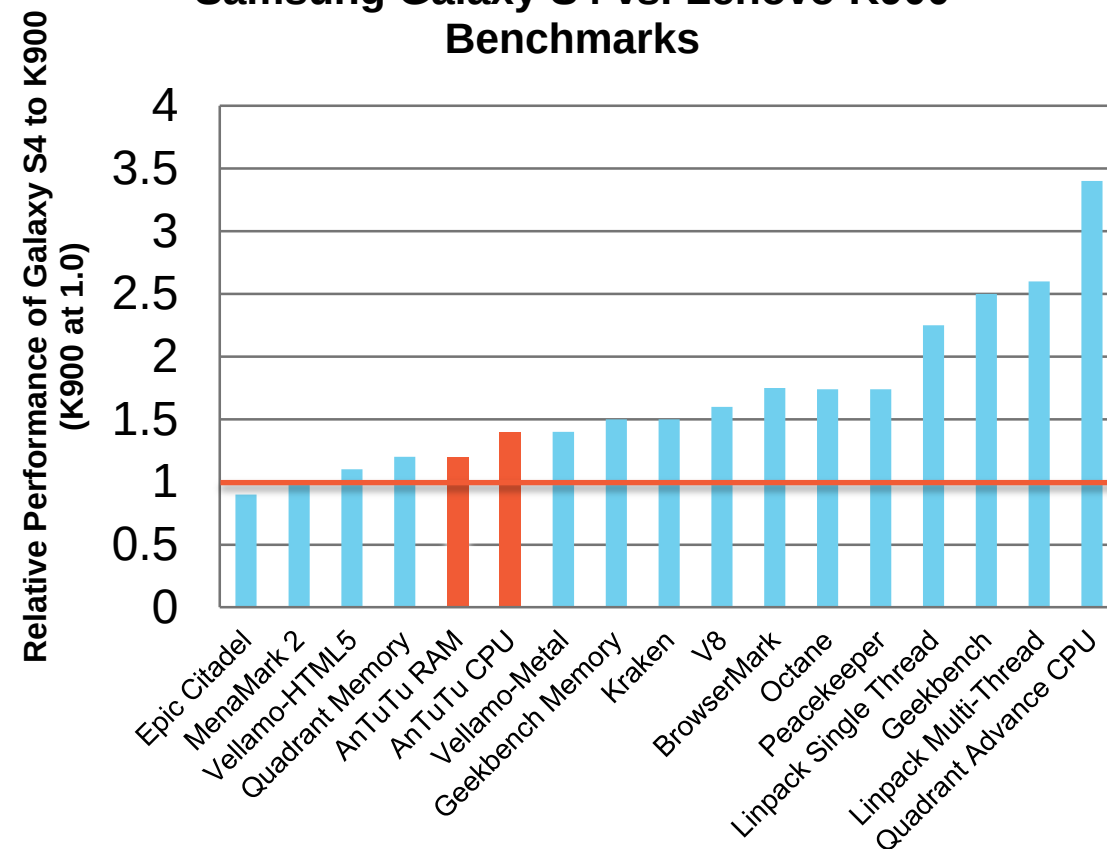
"To rectify the situation, AnTuTu issued revision 3.2.2 to the benchmark Wednesday evening. The revision still uses the ICC compiler, but the resulting scores are drastically different for the Intel processor. The AnTuTu CPU and overall scores dropped by approximately 20 percent, while the AnTuTu RAM score plummeted by approximately 50 percent, as shown in the figure below. All other scores for the Intel processor remain relatively the same. Similarly, scores for the Samsung S4 Oct and Qualcomm Snapdragon 600, both used in the Samsung Galaxy S4, remain relatively unchanged."

-Jim McGregor, EE Times, 7/12/2013



Revised (Antutu 3.2.2)

Samsung Galaxy S4 vs. Lenovo K900 Benchmarks



Thank you

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