

# **EXHIBIT 113**



## Samsung Unveils Galaxy S Line of Android Phones

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Samsung on Tuesday held a launch event for its new line of large-screen, super fast Android phones, which join a crowded market filled with the likes of the HTC Evo 4G on Sprint and the Motorola Droid X on Verizon.

Samsung's Galaxy S line of phones was [previewed back at the CTIA show in March](#), and has a number of interesting features, including Samsung's own 1 GHz Hummingbird processor and a new Super AMOLED display. On Tuesday, however, the firm announced more specifics, including plans to ship the phone with all of the major U.S. carriers.

Samsung pointed to three things that differentiate its phones from the competitors: processor speed; the AMOLED display; and the content.

The processor is a 1 GHz Hummingbird processor, based on an ARM Cortex-A8 core. Most of the new high-end phones have 1 GHz ARM-based processors, but Samsung talked up its graphics processing, which it said can render 90 million triangles per second. I'm not convinced everyone is talking about the same thing when they quote "triangles," but it looked fast. We'll have to wait for real phones - and games that take advantage of the processor - to really know.

The Super AMOLED display differs from the previous generation of OLED displays by building the touch screen directly into the screen itself, getting rid of an air gap. At four inches and a resolution of 854-by-480, it's not quite as big as the [Droid X](#) or the [Evo](#) or as dense as the [iPhone 4](#), but it's still plenty big and dense enough.

Samsung said AMOLED has much better contrast than LCD displays. That seems quite likely given the OLED technology, but you should take the quoted 50,000:1 contrast ratio with a big grain of salt, as you should similar numbers for all displays. The company also said it was faster, brighter, and used less power than a comparable LCD. The units on display had their brightness turned all the way up and looked very bright indeed - in fact, some of the colors looked oversaturated. Again, we'll have to wait to see final phones.

Finally, the company talked about content, particularly its Social Hub, which collects e-mail, instant messages, and SMS messages along with Twitter, Facebook, and MySpace updates for your contacts. There is also a "Buddies Now" feature to show you the most current updates from your most important "friends." Samsung said it would have its own Media Hub application to license movies and other content for the device.

Like the Droid X, Evo, and Nexus One, the Galaxy S series runs Android 2.1, with an upgrade to 2.2 and Flash Player 10.1 coming soon. It has a 5-megapixel camera, 720p video, plus a front-facing camera for video calls.

Perhaps the most surprising thing about the announcement was the number of carrier partners. In this era where most phones are exclusive to one U.S. carrier or another, Samsung announced there will be versions of the phone on all the major carriers.

Each is slightly different: on AT&T, it will be called the [Captivate](#) and run on 7.2 Mbps HSPA; on Sprint, it will be the [Epic 4G](#) and support EV-DO and Wimax; on T-Mobile, it will be the [Vibrant](#) (expected July 21) and support HSPA+; and on Verizon, it will be the [Fascinate](#) and run on EV-DO. Prices and ship dates for the carriers other than T-Mobile weren't announced, but the products are expected this summer. U.S. Cellular and Cellular South also announced support, but haven't named their models yet.

There seemed to be different amounts of memory in different models. AT&T said its version comes with 16GB onboard plus up to 16GB on a microSD card. Verizon said its phone comes with 2GB plus a 16GB microSD card, expandable to 32GB. Sprint's phone comes with a 16GB card expandable to 32 GB, and T-Mobile and US Cellular just said their options are expandable to 32 GB.

Weight, too, seemed to differ, probably because of different radios, with the AT&T version listed at 4.19 ounces (vs. 4.6 oz. for the iPhone 4 and 6 oz. for the Evo) while the Sprint version is listed at 5.46 ounces (similar to the Droid X, but less than the Evo.) The AT&T version felt really light next to the other phones.

For more, see PCMag mobile analyst Sascha Segan's hands on with the [Samsung Captivate for AT&T](#), the [Samsung Epic 4G for Sprint](#), the [Samsung Vibrant for T-Mobile](#), and the [Samsung Fascinate for Verizon Wireless](#).

And here are the Evo 4G, iPhone 4, Samsung Captivate, and Droid X side by side:



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