# **EXHIBIT 134**





# Samsung Infuse 4G SGH-I997 (AT&T)

REVIEW DATE: May 17, 2011

**BOTTOM LINE:** 

The Samsung Infuse 4G is one honking Android phone and a good choice for AT&T subscribers, but you'll still need a different

carrier if you want real 4G speeds.

PROS: Very thin. Huge, vibrant Super AMOLED Plus screen. Stellar battery life. First truly 4G AT&T phone.

CONS:

AT&T doesn't yet have a network to back up the phone's speeds. Not the best voice phone. Tall and wide dimensions make it tough to hold.

COMPANY:

Samsung Electronics

SPEC DATA:

Service Provider: AT&T
Operating System: Android OS
Processor Speed: 1.2 GHz
Form Factor: Candy Bar
Physical Keyboard: No
Screen Size: 4.5 inches

Screen Details: 480-by-800-pixel, 16M-color, capacitive TFT LCD touch screen

Camera: Yes
Megapixels: 8 MP
Camera Flash: Yes
802.11x: Yes
Bluetooth: Yes

Storage Capacity (as Tested): 14.6 GB

Network: GSM, UMTS

Bands: 850, 900, 1800, 1900, 2100

High-Speed Data: GPRS, EDGE, UMTS, HSDPA Battery Life (As Tested): 8 hours 15 minutes Battery Life (As Tested): 8 hours 15

#### **By Jamie Lendino**

Don't believe the hype: the Samsung Infuse 4G may be AT&T's first true 4G cell phone, but AT&T doesn't appear to have the network to back up the Infuse's HSPA+ 21 speeds. The Infuse is the first phone we've tested that packs an extra-large, 4.5-inch touch screen. It's also amazingly thin—thinner even than the Samsung Galaxy S 4G (\$199, 4 stars) on T-Mobile. Still, a few quibbles here and there add up to a phone that's very good, but not great. It still makes the cut for our list of The Best Phones on AT&T.

### Design and Screen

The Infuse 4G measures 5.2 by 2.8 by 0.35 inches (HWD) and weighs 4.9 ounces. Even though it's razor-thin, the Infuse 4G is long and wide enough that anyone with small hands may have trouble holding it up to their ear for long conversations. The phone's crisp lines and nicely textured back panel help offset its plastic body. The overall effect looks trim and reasonably high-end.

# The 4.5-inch Super AMOLED Plus glass capacitive touch screen looks View Sindeshow









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amazing in person, with brilliant color and deep black levels. Super AMOLED Plus has the pure blacks of AMOLED, with better visibility in sunlight (that's the Super) and better colors created by a new arrangement of subpixels (that's the Plus.) With a 4.5-inch panel, though, it's time to go to a higher resolution than 480-by-800. This is the first time I noticed individual pixels in fonts on a 480-by-800-pixel screen. That said, the on-screen QWERTY keyboards are

huge, even in portrait mode. Both orientations made typing long messages a cinch. Dialing numbers was also easy and fast.

#### **Data Networks and Voice Quality**

The Infuse 4G is a quad-band EDGE (850/900/1800/1900 MHz) and tri-band HSPA+ 21 (850/1900/2100 MHz) device with 802.11b/g/n Wi-Fi. It also supports HSUPA for faster upload speeds, and it works as a mobile hotspot for up to five devices with the appropriate AT&T data plan. But AT&T hasn't built out HSPA+ across most of the country yet, and it isn't available in my area outside Boston. With an average of 1.8Mbps down, with 138ms ping rates and upload speeds averaging 375 Kbps, the Infuse 4G was clearly limited by AT&T's network.

The Infuse 4G is almost too big to hold up to your head and make calls with. Voice quality was just okay. Callers sounded full, but

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slightly thin and muffled in the earpiece. My own voice sounded a little thin through the microphone as well. Reception was a bit below par as well; the Infuse 4G dropped two calls during testing. Calls sounded clear through an Aliph Jawbone Icon Bluetooth headset (\$99, 4 stars). Inexplicably, I couldn't find any voice dialing app, and cueing it up through the headset didn't work either. The speakerphone sounded fine, but it could use a little more gain. Battery life was stellar at 8 hours and 15 minutes of talk time.

#### Hardware, OS, and Apps

The Infuse 4G runs Android 2.2 (Froyo) with Samsung's TouchWiz extensions; there's no word yet on a 2.3 (Gingerbread) upgrade. The 1.2GHz Samsung single-core CPU is a nice bump over the 1GHz chips found in many other Samsung handsets, including the brand new Droid Charge (\$299, 4 stars) over on Verizon. Benchmark results have it running about 10 to 20 percent ahead of 1GHz Samsung handsets from the past year. The Infuse 4G felt very responsive in day-to-day usage. There are seven home screens you can swipe between and customize. Samsung's usual colorful blocks surround menu icons, and the menu screens swipe right to left instead of vertically. There is less bloatware on this phone than I have seen on other AT&T devices, which is good.

Samsung's clumsy, somewhat expensive Media Hub movie and TV store is on board; it lets you buy or rent from a smallish selection of movies and TV shows. The first 500,000 buyers will get a \$25 credit to Media Hub. You can also stream video from AT&T's U-Verse TV. The phone also includes a copy of Angry Birds with an exclusive level for the Infuse 4G; beat the level, and you'll become eligible for special prizes. Otherwise, all of the usual Android 2.2-related goodness is here: free Google Maps Navigation for voice-enabled, turn-by-turn directions; native Microsoft Exchange support; compatibility with over 150,000 apps in Android Market; a great stock WebKit browser... you get the picture.

#### Multimedia, Camera, and Conclusions

This is a stellar multimedia machine. The standard-size 3.5mm headphone jack is always a plus, and Samsung includes a full-sounding wired set of stereo earbuds in the box. Music tracks also sounded clear and detailed through Samsung Modus HM6450 Bluetooth headphones (\$99, 4 stars). Standalone SD and 720p HD videos played smoothly and vibrantly in full screen mode. The deep black levels and boosted color intensity really showed here. There's no kickstand, but that's a reasonable tradeoff considering how thin the Infuse 4G is. Samsung also includes a microUSB-to-HDMI dongle for hooking the Infuse 4G up to a television, but the dongle also requires simultaneous use of the AC adapter; call that one a non-starter.

There's 14.6GB of onboard internal storage. That helps offset how Samsung buried the microSD slot behind the battery; my 32GB SanDisk card worked fine, and Samsung throws in an extra 2GB card as well.

The Infuse 4G packs two cameras: an 8-megapixel auto-focus camera on back with a large LED flash, and a much less useful, 1.3-megapixel front-facing camera. There's still no good video chat program for Android, so forget the front camera. The back camera, on the other hand, was great. Test photos looked sharp, detailed, and well balanced, with crisp definition on tree levels and patio bricks outdoors. Indoors, photos were a little softer, and there was a touch of noise, but it wasn't bad. Recorded 1280-by-720-pixel (720p) and 720-by-480-pixel videos were smooth and detailed at an even 30 frames per second.

Overall, the Samsung Infuse 4G is a satisfying Android smartphone. If you like big screens, look no further. The Apple iPhone 4 (\$199, 4.5 stars) lacks the Infuse 4G's larger screen and free voice navigation, but it has a smoother, more reliable OS, and the world's best third-party app selection. The HTC Inspire 4G (\$99.99, 4 stars) is now \$100 cheaper, it's a better voice phone, it's made of classier materials and it features HTC's better Sense UI interface. Even though the Infuse has a faster Internet connection, we prefer the Inspire overall. The Motorola Atrix 4G (\$199, 4 stars) is also superior; it's the same price as the Infuse 4G, but it contains a faster, dual-core CPU and higher resolution (if slightly smaller) screen.

#### **Benchmarks**

Continuous talk time: 8 hours 15 minutes

Compare the Samsung Infuse 4G to other similar cell phones.

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