

# EXHIBIT 12

# Samsung Galaxy S II

From Wikipedia, the free encyclopedia

The **Samsung Galaxy S II** (GT-I9100) is a smartphone running under the Android operating system that was announced by Samsung on February 13, 2011 at the Mobile World Congress. It is the successor to the Samsung Galaxy S, with a different appearance and significantly improved hardware.<sup>[6]</sup> The phone is also the predecessor of the yet-to-be unveiled Samsung Galaxy S III.<sup>[7]</sup> The Galaxy S II was one of the slimmest smartphones of the time, mostly 8.49 mm thick, except for two small bulges which take the maximum thickness of the phone to 9.91 mm.<sup>[8]</sup> The Galaxy S II has a 1.2 GHz dual-core "Exynos" system on a chip (SoC) processor,<sup>[9]</sup> 1 GB of RAM, a 10.8 cm (4.3 in) WVGA Super AMOLED Plus screen display and an 8 megapixel camera with flash and full 1080p high definition video recording. It is one of the first devices to offer a Mobile High-definition Link (MHL),<sup>[10]</sup> which allows up to 1080p uncompressed video output to an MHL enabled TV or to an MHL to HDMI adapter, while charging the device at the same time. USB On-The-Go (USB OTG) is supported.<sup>[11][12]</sup>

The user-replaceable battery on the Galaxy S II gives up to ten hours of heavy usage, or two days of lighter usage.<sup>[13]</sup> According to Samsung, the Galaxy S II is capable of providing 9 hours of talk time on 3G and 18.3 hours on 2G.<sup>[13][14]</sup>

On March 12th (2012), Samsung began rolling out the latest version of Android's Operating System - Ice Cream Sandwich (4.0) - on the Galaxy S II.<sup>[15]</sup>

## Contents

- 1 Launch and availability
  - 1.1 Asia/Pacific
  - 1.2 North America
  - 1.3 South America
  - 1.4 Africa
  - 1.5 Europe
- 2 Hardware
  - 2.1 Processor
  - 2.2 Memory
  - 2.3 Display
  - 2.4 Audio
  - 2.5 Camera
  - 2.6 Connectivity
  - 2.7 Accessories (optional)
- 3 Software
  - 3.1 Android operating system
  - 3.2 User interface

## Samsung Galaxy S II

# GALAXY S II



Samsung Galaxy S II (GT-I9100)

<b>Manufacturer</b>	Samsung Electronics
<b>Series</b>	Galaxy series; S series
<b>Compatible networks</b>	Dual band CDMA2000/EV-DO Rev. A 800 and 1900 MHz; WiMAX 2.5 to 2.7 GHz; 802.16e 2.5G (GSM/GPRS/EDGE): 850, 900, 1800, and 1900 MHz UMTS: 850, 900, 1700 (T-

- ‡ 3.3 Bundled applications
- ‡ 3.4 Media support
- ‡ 3.5 Community support
- ‡ 4 Reception
- ‡ 5 Variants
  - ‡ 5.1 Galaxy S II GT-I9100G
  - ‡ 5.2 Galaxy R (GT-I9103)
  - ‡ 5.3 Galaxy W (Galaxy S II Mini)
  - ‡ 5.4 Galaxy S II LTE and Galaxy S II HD LTE
  - ‡ 5.5 U.S. variants
    - ‡ 5.5.1 Sprint's Galaxy S II Epic 4G Touch (SPH-D710)
    - ‡ 5.5.2 T-Mobile's Galaxy S II (SGH-T989)
    - ‡ 5.5.3 AT&T's Galaxy S II (SGH-I777)
    - ‡ 5.5.4 AT&T's Galaxy S II: Skyrocket (SGH-I727)
    - ‡ 5.5.5 AT&T's Samsung Captivate Glide (SGH-I927)
    - ‡ 5.5.6 U.S. Cellular's Samsung Galaxy S II (SCH-R760)
  - ‡ 5.6 Japanese model (NTT DoCoMo)
  - ‡ 5.7 South Korean variants
    - ‡ 5.7.1 SK Telecom's Galaxy S II (SHW-M250S)
    - ‡ 5.7.2 KT's Galaxy S II (SHW-M250K)
    - ‡ 5.7.3 LG U+'s Galaxy S II (SHW-M250L)
  - ‡ 5.8 Canadian variants
    - ‡ 5.8.1 Rogers' Galaxy S II LTE (SGH-i727R)
    - ‡ 5.8.2 Bell's Galaxy S II (GT-I9100M)
    - ‡ 5.8.3 Telus' 4G Galaxy S II X (SGH-T989D)
- ‡ 6 Successor
- ‡ 7 See also
- ‡ 8 References
- ‡ 9 External links

## Launch and availability

The Galaxy S II was given worldwide release dates starting from May 2011, by more than 140 vendors in some 120 countries.<sup>[16]</sup>

On May 9, 2011, Samsung announced that they had received pre-orders for 3 million Galaxy S II units globally.<sup>[17]</sup>

In some time after the device's release, Samsung also released a Nvidia Tegra 2 powered Samsung Galaxy R (or 'Galaxy Z' in Sweden) variant version. The release of the Galaxy R 'GT-I9103' corroborated with early pre-release reports of an Nvidia powered Galaxy S II smartphone.<sup>[18][19]</sup> Eldar Murtazin, of Mobile-Review.com, hinted that

	Mobile USA only), 1900, and 2100 MHz
	HSPA+: 21/42 Mbit/s; HSUPA: 5.76 Mbit/s LTE 700/1700
	Rogers Only
<b>Predecessor</b>	Samsung Galaxy S
<b>Successor</b>	Samsung Galaxy S III
<b>Related</b>	Samsung Galaxy Note Galaxy Ace Galaxy Nexus Infuse 4G
<b>Type</b>	Touchscreen smartphone
<b>Dimensions</b>	125.3 mm (4.93 in) H 66.1 mm (2.60 in) W 8.49 mm (0.334 in) D (standard)
	5.11 in (130 mm) H 2.74 in (70 mm) W 0.38 in (9.7 mm) D (Sprint)
<b>Weight</b>	4.6 oz (130 g) (standard) 116 g (4.1 oz) (Sprint)
<b>Operating system</b>	Android 4.0.3 (Ice Cream Sandwich) with TouchWiz UI 4.0
<b>CPU</b>	1.2 GHz dual-core ARM Cortex-A9 <sup>[1]</sup> SoC processor; Samsung Exynos (GT-I9100)(under AT&T, Sprint, and outside US models); Texas Instruments OMAP4430 (GT-I9100G)
	1.5 GHz dual core Qualcomm Snapdragon S3 (T-Mobile Model / SGSII LTE & HD LTE Model & Rogers Model)

Samsung might have faced delays in meeting worldwide shipment of both its Exynos chip and Super AMOLED Plus screens. He noted that nobody expected the "huge success" and "sky high" demand for the previous Samsung Galaxy S.<sup>[20]</sup>

Different regions around the world have received this device to market beginning from the earliest of April 2011.

### Asia/Pacific

Country	Release date
Australia	June 1, 2011
Hong Kong	June 14, 2011
Israel	July 3, 2011
India	June 8, 2011 <sup>[21]</sup>
Iran	June 1, 2011
Iraq	July 18, 2011 <sup>[citation needed]</sup>
Japan	June 23, 2011
Lebanon	June 21, 2011
Malaysia	June 22, 2011
Pakistan	July 23, 2011 <sup>[22]</sup>
Philippines	June 27, 2011
Singapore	June 24, 2011
South Korea	April 29, 2011
Taiwan	June 17, 2011
Thailand	July 8, 2011
UAE	June 22, 2011

### South America

Country	Release date
Chile	May 25, 2011
Brazil	June 28, 2011
Argentina	August 22, 2011

### Africa

Country	Release date
South Africa	June, 2011 <sup>[27]</sup>
Uganda	September, 2011 <sup>[citation needed]</sup>

<b>GPU</b>	ARM Mali-400 MP (GT-I9100) <sup>[2][3]</sup> Adreno 220 (models with Snapdragon SoC)  PowerVR SGX540 (GT-I9100G)
<b>Memory</b>	1 GB RAM
<b>Storage</b>	16 GB flash memory
<b>Removable storage</b>	microSD (up to 32 GB)
<b>Battery</b>	Li-ion 1650 mAh (Original Model) & 1850mAh (Rogers Model), Official Extended 2000mAh kit by Samsung available.
<b>Data inputs</b>	Multi-touch touch screen, headset controls, proximity and ambient light sensors, 3-axis gyroscope, magnetometer, accelerometer, aGPS, and stereo FM-radio <sup>[4]</sup>
<b>Display</b>	800×480 px, 10.8 cm (4.3 in) at 218 ppi WVGA Super AMOLED Plus (0.37 megapixels) 4.5" Rogers Model Only
<b>Rear camera</b>	8 Mpx Back-illuminated sensor with auto focus, 1080p 30 fps full HD video recording, full HD reproduction, and stills. Single LED flash.
<b>Front camera</b>	2 Mpx for video chatting, video recording (VGA), and stills
<b>Connectivity</b>	3.5 mm TRRS; Wi-Fi (802.11a/b/g/n); Wi-Fi Direct; Bluetooth 3.0; micro USB 2.0;

## North America

Country	Carrier	Release date	Variant
Canada	Bell Mobility, Virgin Mobile Canada	July, 2011 <sup>[23][24]</sup>	Samsung Galaxy S II 4G
Canada	Telus	October, 2011	Samsung Galaxy S II X <sup>[citation needed]</sup>
Canada	Rogers Wireless	November, 2011	Samsung Galaxy S II LTE (i727R)
Mexico	Telcel	June, 2011 <sup>[25]</sup>	Samsung Galaxy II LTE
United States	Sprint	September 16, 2011	Samsung 'EPIC 4G Touch' <sup>[26]</sup>
United States	AT&T	November 6, 2011	Samsung Galaxy S II AT&T
United States	T-Mobile	October 12, 2011	Samsung Galaxy S II T-Mobile
United States	U.S. Cellular	March 1, 2012	Samsung Galaxy S II U.S. Cellular
Caribbean	Digicel	December 21, 2011	Samsung Galaxy S II Digicel

## Europe

Country	Release date
Austria	May 5, 2011
Denmark	May 19, 2011
Belgium	June 1, 2011
Finland	May 25, 2011
France	May 28, 2011
Germany	May 16, 2011
Hungary	June 1, 2011
Ireland	June 1, 2011
Italy	May 25, 2011
Netherlands	May 11, 2011
Norway	May 26, 2011
Poland	May 26, 2011
Portugal	June 8, 2011
Romania	May 26, 2011
Russia	May 18, 2011
Slovakia	May 18, 2011
Spain	May 15, 2011
Sweden	May 12, 2011
Turkey	June 9, 2011
UK	May 1, 2011

The Exynos branded SoC was the source of much speculation concerning another branded successor to the previous "Hummingbird" single-core SoC of the Samsung Galaxy S. The Exynos 4210 uses ARM's Mali-400 MP GPU. <sup>[2][28]</sup> This graphics GPU, supplied by ARM, is a move away from the PowerVR GPU of the Samsung Galaxy S. <sup>[29]</sup>

The Exynos 4210 supports ARM's SIMD engine (also known as *Media Processing Engine*, or 'NEON' instructions), and may give a significant performance advantage in critical performance situations such as accelerated decoding for many multimedia codecs and formats (e.g., On2's VP6/7/8 or Real formats). <sup>[30][31][32]</sup>

	Near field communication (NFC); DLNA; MHL; HDMI; USB Host (OTG) 2.0
<b>Other</b>	Exchange ActiveSync, integrated messaging <i>Social Hub</i> , <i>Readers Hub</i> , <i>Music Hub</i> , and <i>Game Hub</i>
<b>Hearing aid compatibility</b>	M3/T3 <sup>[5]</sup>

## Hardware



Dismantled Samsung Galaxy S II, from left to right components include the handset, battery and back cover

## Processor

The Galaxy S II has a 1.2 GHz dual core ARM Cortex-A9 processor that uses Samsung's own 'Exynos 4210' System on a chip (SoC) that was previously code-named "Orion".

At the 2011 Game Developers Conference ARM's representatives demonstrated 60 Hz framerate playback in stereoscopic 3D running on the same Mali-400 MP and Exynos SoC. They said that an increased framerate of 70 Hz would be possible through the use of an HDMI 1.4 port.<sup>[28]</sup>

The Motorola Atrix advertised in June 2011 that it was "the world's most powerful smartphone"; in August 2011 the UK Advertising Standards Authority ruled that the Atrix was not as powerful as Galaxy SII due to its faster processor.<sup>[33]</sup>

A newer Samsung Galaxy S II (i9100G) uses a 1.2 Ghz dual core TI OMAP 4430 processor with PowerVR SGX540 graphics.<sup>[34]</sup>

## Memory

The Galaxy S II has 1 GB of dedicated RAM and 16 GB of internal mass storage. Within the battery compartment there is an external microSD card slot.

## Display

The Samsung Galaxy S II uses a 108.5-millimetre (4.27 in)<sup>[12]</sup> WVGA (800 x 480) Super AMOLED Plus capacitive touchscreen that is covered by Gorilla Glass with an oleophobic fingerprint-resistant coating. The display is an upgrade of its predecessor, and the "Plus" signifies that the display panel has done away with Pentile matrix to regular RGB matrix display which results in a 50% increase in sub-pixels. This translates to grain reduction and sharper images and text. In addition, Samsung has claimed that Super AMOLED Plus displays are 18% more power efficient than the older Super AMOLED displays.<sup>[35]</sup> Some phones have display issues, with a few users reporting a "yellow tint" on the left bottom edge of the display when a neutral grey background is displayed.<sup>[36]</sup>



## Audio

The Galaxy S II uses Yamaha audio hardware.<sup>[37]</sup> The Galaxy S II's predecessor, the original Galaxy S, used Wolfson's WM8994 DAC.<sup>[38]</sup> User feedback on Internet forums as well as an in-depth review at *Clove*,<sup>[37]</sup> have expressed the Yamaha chip's inferior sound quality compared to that of the Wolfson chip featured in the original Galaxy S.

## Camera

On the back of the device is an 8-megapixel Back-illuminated sensor<sup>[39]</sup> camera with single-LED flash that can record videos in full high-definition 1080p at 30 frames per second. There is also a fixed focus front-facing 2-megapixel camera for video calling, taking photos as well as general video recording, with a maximum resolution of VGA (640×480).

## Connectivity

The Galaxy S II is one of the earliest Android devices to natively support near field communication (NFC).<sup>[40]</sup> This follows on from the Google Nexus S which was the first de-facto NFC smartphone device.<sup>[41]</sup> It has been reported that the UK version will be supplied without an NFC chip at the beginning of its production run,<sup>[42]</sup> with an NFC-equipped version released later in 2011.<sup>[43]</sup>

Samsung has also included a new high-definition connection technology called Mobile High-definition Link (MHL). The main specialty of MHL is that it is optimized for mobile devices by allowing the device's battery to be charged while at the same time playing back multimedia content.<sup>[44]</sup> For the Galaxy S II, the industry standard micro USB port found on the bottom of the device can be used with an MHL connector for a TV out connection to an external display, such as a high definition television.<sup>[45]</sup>

The micro USB port on this device also supports USB On-The-Go (USB OTG) standard which means the Galaxy S II can act as a 'host' device in the same way as a desktop computer in allowing external USB devices to be plugged in and used.<sup>[11]</sup> These external USB devices typically include USB flash drives and separately powered external hard drives. A video demonstration on YouTube<sup>[46]</sup> has shown the OTG function to be readily available with an ordinary micro USB (B-type) OTG adaptor. The same YouTube video goes on to mention a successful test completed on a 2 TB USB external hard drive (requiring own power source) but however reports of failure when trying to connect USB keyboards, tested USB mice and tested USB game pads. Currently the only file-system supported for USB drives within OTG is Fat32.

A 3.5 mm TRRS headset jack is available and is located on the top side of the device. The micro USB connection port is located on the bottom side of the device.

BCM4330 combo chip integrates 802.11n Wi-Fi, Bluetooth 3.0 + HS and FM radio. BCM4330 supports Wi-Fi Direct that communicate directly with one another without having to interact with an access point.<sup>[47]</sup>

### Accessories (optional)

- ‡ Dock connector for battery charging and audio-visual output<sup>[48]</sup>
- ‡ MHL cable which makes use of the device's micro USB port for HDMI output<sup>[48]</sup>
- ‡ USB OTG adaptor for use with external USB devices such as USB flash drives.<sup>[11]</sup>
- ‡ Stylus pen for use on the device's capacitive screen.<sup>[48]</sup> Support for a stylus on the Galaxy S II is precursor to the Samsung Galaxy Note.
- ‡ A number of case manufacturers have released a variety of cases for the Galaxy S II.

## Software

### Android operating system

The Galaxy S II ships with Android's 2.3 (Gingerbread) installed.<sup>[4]</sup>

Samsung Galaxy S II US variants begun shipments with the slightly updated Android 2.3.5 (Gingerbread) installed.<sup>[49][50]</sup> The Android 2.3.6 firmware update from Samsung was made globally available from Dec 12 2011.<sup>[51]</sup>

On March 13th 2012 Samsung began to roll out upgrades to Android 4.0.3 (Ice Cream Sandwich)<sup>[52]</sup>. This was a limited release with users in Korea, Hungary, Poland and Sweden being the first to receive the update accessible via the companies own phone management software kies.

## User interface

The phone employs the latest proprietary Samsung TouchWiz 4.0 user interface. It follows the same principle as TouchWiz 3.0 found on the previous Galaxy but adds new improvements, such as hardware acceleration. It also has a new optional gesture based interaction called 'motion' which (among other things) allows users to zoom in and out by placing two fingers on the screen and tilting the device towards and away from you to zoom in and out respectively. This gesture function works on both the web browser and the images in gallery<sup>[53]</sup> used within this device. There have been improvements to the widgets drawer and layout in how many widgets can be added and how they are presented. Additionally there is another new optional gesture-based control called 'panning' on TouchWiz 4.0 for the movement of widgets and icons shortcuts between screens, by allowing the device to be held and moved from side to side to scroll through home screens. This gesture-based management of widgets is a new optional method next to the existing method of holding and swiping between home screens.<sup>[54]</sup>

## Bundled applications

Four new Samsung 'Hub' applications were revealed at the 2011 Mobile World Congress:

### Social Hub

Which integrates popular social networking services like Facebook and Twitter into one place rather than in separate applications.

### Readers Hub

This hub provides the ability to access, read and download online newspapers, ebooks and magazines from a worldwide selection.

### Music Hub

An application store for downloading and purchasing music tracks on the device. Samsung has teamed up with 7digital to offer this service.<sup>[55]</sup>

### Game Hub

An application store for downloading and purchasing games. Samsung has teamed up with partners including Gameloft to offer this service.<sup>[55]</sup>

### Other applications

More applications include Kies 2.0, Kies Air,<sup>[56]</sup> AllShare (for DLNA), Voice Recognition, Google Voice Translation,<sup>[57]</sup> Google Maps with Latitude, Places, Navigation (beta) and Lost Phone Management, Adobe Flash 10.2, QuickOffice application and 'QuickType' by SWYPE.

Before launch, it was announced that Samsung had taken steps to incorporate Enterprise software for business users, which included On Device Encryption, Cisco's AnyConnect VPN, MDM (Mobile Device Management), Cisco WebEx, Juniper,<sup>[40]</sup> and secure remote device management from Sybase.<sup>[58]</sup>

Cisco's AnyConnect VPN for Samsung devices is now currently available on Android Market.<sup>[59]</sup>

## Media support

The Galaxy S II comes with support for many multimedia file formats and codecs. For audio it supports FLAC, WAV, Vorbis, MP3, AAC, AAC+, eAAC+, WMA, AMR-NB, AMR-WB, MID, AC3, XMF. For video formats and codecs it supports MPEG-4, H.264, H.263, DivX HD/XviD, VC-1, 3GP (MPEG-4), WMV (ASF) as well as AVI (DivX), MKV, FLV and the Sorenson codec. For H.264 playback, the device natively supports 8-bit encodes along with up to 1080p HD video playback.<sup>[60][61][62]</sup>

## Community support

It was public news that Samsung sent a number of Galaxy S II devices to four developers of the CyanogenMod project, with the only request from Samsung being to bring full support of CyanogenMod to the device.<sup>[63][64]</sup>

## Reception

Reviews of the Galaxy S II have been positive. *Engadget* gave the device a 9/10, calling it "the best Android smartphone yet" and "possibly the best smartphone, period."<sup>[65]</sup> *CNET UK* gave the device a favorable review of 4.5/5 and described it as "one of the slimmest, lightest mobiles we've ever had the privilege to hold."<sup>[66]</sup> *TechRadar* gave the device 5/5 stars and describes the device as one that "set a new bar for smartphones in 2011."<sup>[67]</sup> *Pocketnow* was "impressed" with the speed of the web browser.<sup>[68]</sup> *SlashGear* states that the device "sets the benchmark for smartphones in general."<sup>[69]</sup> *GSMarena* points out minor drawbacks such as an "all-plastic body" and the handset having "no dedicated camera key," but still calls the handset "absurdly powerful" and concluding "we just cannot see beyond the new Samsung flagship if we're to name the ultimate smartphone."<sup>[70]</sup>

After slightly over one month since its debut, more than 1 million units of Samsung Galaxy S II were activated in South Korea.<sup>[71]</sup> Worldwide, 3 million units were sold in 55 days.<sup>[72]</sup> After over 85 days of its first release, Samsung has declared global shipments of over 5 million for Galaxy S II<sup>[73]</sup> and 10 million after 5 months.<sup>[74]</sup> Partially owing to strong sales of Samsung's Galaxy range of smartphones, Samsung overtook Apple in smartphone sales during Q3 2011, with a total market share of 23.8%, compared to Apple's 14.6%.<sup>[75]</sup> As of February 2012, Samsung has shipped over 20 million units globally.

## Variants

### Galaxy S II GT-I9100G

The Samsung Galaxy S II GT-I9100G was released in late 2011, and is usually sold instead of the original GT-9100 in certain markets. It features a Texas Instruments OMAP4430 chipset instead of the Exynos chipset on the GT-I9100. It has the same 1.2GHz dual-core ARM Cortex A9 processor as the GT-I9100 model, however the GPU is replaced by a PowerVR SGX 540 graphics processor. While practically equivalent, the different chipset makes this variant incompatible with custom ROMs such as CyanogenMod designed for the i9100.

### Galaxy R (GT-I9103)

The Samsung Galaxy R is one of the currently available variants of the Galaxy S II. It was announced for releases first in Europe starting from the end of July 2011 with subsequent releases for worldwide. It features the Nvidia Tegra 2 AP20H chipset which is a 1Ghz dual-core ARM Cortex A9 processor. The Galaxy R is slightly smaller in physical size along with some notable "downgraded" features.<sup>[76][77]</sup> Its differing comparable features include a 10.2 cm (4.0 in) SC-LCD capacitive touchscreen display, a 5 megapixel camera with 720p HD video recording, 8GB internal storage and a microSD memory card slot. The overall physical size and back of the design of this device differ slightly to that of the original Galaxy S II. Like Galaxy S II, the Galaxy R will also support Kies Air (PC Suite via Wi-Fi).<sup>[18][19]</sup>

### Galaxy W (Galaxy S II Mini)

The Samsung Galaxy W I8150 is a smaller-sized 9.5 cm (3.7 in) touchscreen variant. The Galaxy W, too, is a downgrade in features to that of the Galaxy S II with the same comparable downgraded features as that of the Galaxy R. The Galaxy W and Galaxy R both feature a 'SC-LCD' capacitive touchscreen with continued 480x800 resolution, both Galaxy W and Galaxy R feature a 5 megapixel still-image camera with 720p video capture. The main differences of the Galaxy W from other variants, is that it features a 1.4 GHz Qualcomm manufactured processor, its physical design differs slightly and furthermore its screen has a higher pixel density (ppi) compared to that of the Galaxy S II and Galaxy R.<sup>[78][79]</sup>

Prior to the release of the Galaxy S II, there were speculative reports of an exact same smaller-sized, stripped down variant planned for release; in a similar example to the way the HTC HD Mini was towards the HTC HD2. The name previously rumored for this smaller Galaxy S II variant included the naming suffix of 'Mini' added the end of its name.<sup>[80][81]</sup>

## Galaxy S II LTE and Galaxy S II HD LTE

Announced on August 28, 2011, the Galaxy S II *Long Term Evolution* (LTE) and Galaxy S II HD (LTE) mobile phones are part of the Galaxy S II family. They run on the Android 2.3 Gingerbread OS, have 16GB of internal memory, and feature a 1.5 GHz dual-core processor. The S II LTE has a 4.5-inch wide Super AMOLED display. The S II HD LTE features a 4.65-inch high-definition AMOLED display, offering a screen of 720x1280 pixels – 720p HD resolution.<sup>[82]</sup> Both of these variants have NFC enabled.<sup>[83]</sup>

## U.S. variants

### Sprint's Galaxy S II Epic 4G Touch (SPH-D710)

The Sprint version of the device, previously codenamed "Within", is known as the Samsung Galaxy S II Epic 4G Touch (Model SPH-D710). Unlike its predecessor, the Epic 4G, the Epic 4G Touch lacks a physical QWERTY keyboard. At 4.52 inches, it has a larger display than the international version.<sup>[84]</sup> Additionally, the Epic 4G Touch features four touch-capacitive buttons, as opposed to the hardware/capacitive button combination found on the international version. Other differences include an LED notification light, larger battery (6.66Wh), and a WiMax radio. The device was launched on September 16, 2011.<sup>[85]</sup> Unlike the T-Mobile USA and AT&T versions this particular model does not come with the NFC chip.<sup>[86]</sup>

### T-Mobile's Galaxy S II (SGH-T989)

The T-Mobile USA version was codenamed the Samsung "Hercules" and given the model number **SGH-T989** (as opposed to other phones with the Galaxy S II name which are I9100 models). It has a 4.52 inch screen, and features four touch buttons.<sup>[87]</sup> The cellular radio in this variant supports UMTS Band I (2100), Band II (1900), Band IV (1700), and Band V (850). It also contains NFC.<sup>[88]</sup> It uses a 1.5 GHz dual-core Qualcomm APQ8060 (S3) Snapdragon processor, as opposed to the 1.2Ghz dual-core Exynos processor. The reason for this is that the Exynos processor is not compatible with T-Mobile's 42 Mbit/s HSPA+ network. As opposed to most of their other phones, T-Mobile's version was initially released with no support for Wi-Fi calling for calls on their own network, but Wi-Fi calling through third party apps such as Skype is possible. T-Mobile and Samsung released an update for Wi-Fi calling on December 15, 2011. The update is available from Samsung via KIES for the T989 and OTA (unconfirmed) from T Mobile. The S II was available for pre-order through T-Mobile's website on October 10, 2011 and became available in stores on October 12.<sup>[89]</sup>

### AT&T's Galaxy S II (SGH-I777)

The AT&T version was codenamed "Attain" (Model SGH-I777). However, it appeared on AT&T and Samsung websites simply as the Samsung Galaxy S II. It maintains a 4.3 inch screen, but also features four touch buttons.<sup>[50]</sup> It also contains NFC.<sup>[88]</sup> It was released on October 2, 2011.



Sprint's Variant: Samsung Galaxy S II Epic 4G Touch

### **AT&T's Galaxy S II: Skyrocket (SGH-I727)**

This is the second variant of this phone to come to AT&T (Model SGH-I727) along with some changes. For instance, the display features the same 4.52 inch screen shared with the Sprint model. Additionally, this variant also includes LTE radio, to coincide with AT&T's launch of its LTE network. However, to make this change it was required for the SoC chipset to be changed from the Exynos to the Qualcomm Snapdragon MSM8260, as the Exynos SoC does not support LTE (akin to a similar limitation made on the T-Mobile model). 'Skyrocket' was released on November 6, 2011 alongside a similar LTE-capable [HTC Vivid] at the same date. The NFC feature is not enabled.

AT&T announced at its CES 2012 Developer Summit keynote that the Galaxy S II Skyrocket HD would be released early in 2012. The Skyrocket HD will be the US variant of the Galaxy S II LTE HD and will feature a 4.65" Super AMOLED Plus display that is capable of 1280x720p resolution, the same 1.5GHz processor as the Skyrocket, and an LTE radio. No release date was specified.

### **AT&T's Samsung Captivate Glide (SGH-I927)**

This is the third variant to come out on AT&T (Model SGH-I927)<sup>[90]</sup> It includes a dual-core processor, but is a 1 GHz Tegra 2 processor instead of the 1.2 GHz Exynos processor. Its display is Super AMOLED is instead of Super AMOLED Plus, and the display size is reduced to 4 inches. It can record video in 720p resolution at 30 fps. Its biggest attraction is the addition of a slide-out physical QWERTY keyboard.

### **U.S. Cellular's Samsung Galaxy S II (SCH-R760)**

U.S. Cellular's variant (Model SCH-R760) is the same as Sprint's Epic 4G Touch, but without the integrated WiMax radio. All other specifications remain the same.

### **Japanese model (NTT DoCoMo)**

In Japan, the Galaxy S2 is known as the NTT DoCoMo SC-02C, manufactured by Samsung Electronics and branded by the DoCoMo carrier, and is the successor to the DoCoMo SC-02B (Galaxy S) within the DoCoMo Smartphone range. Released on 23 June 2011, the Japanese model includes additional features such as 1seg terrestrial television support, as well as i-mode software functions specific to DoCoMo handsets, such as i-channel, BeeTV, MelodyCall and DoCoMo map navigation. The SC-02C uses the Wnn Japanese input system, and uses the Samsung Exynos 4210 Orion Dual-core 1.2 GHz (S5PC210) processor.

### **South Korean variants**

All of south Korean variants have a T-DMB tuner in place of FM radio tuner. They also have Samsung's Korean input system for feature phones as well as Dubeolsik layout in their virtual keyboard.

### **SK Telecom's Galaxy S II (SHW-M250S)**

The SK Telecom variant uses SK-MMS system instead of OMA-MMS system for MMS. Additional features for SK Telecom users are installed by default.

### **KT's Galaxy S II (SHW-M250K)**

This variant uses KT's Wi-Fi CM instead of Android's Wi-Fi CM to connect Wi-Fi. Additional features for KT users are installed by default.

**LG U+'s Galaxy S II (SHW-M250L)**

Because of mobile networks LG U+ have, it uses EV-DO Rev.B (KPCS 1.8Ghz) instead of WCDMA and HSPA. It is slightly thicker (9.4mm) than SK Telecom and KT variants (8.89mm). Additional features for LG U+ users are installed by default.

**Canadian variants****Rogers' Galaxy S II LTE (SGH-i727R)**

This phone features a larger screen 4.52", a bigger battery 1850mAh, and a different 1.5GHZ Qualcomm processor. Rogers will carry the Samsung Galaxy S II LTE, launching in Fall 2011, soon after its LTE Launch in Toronto.<sup>[91]</sup>

**Bell's Galaxy S II (GT-I9100M)**

Bell's Samsung Galaxy S II is identical to the international version except that its model number is I9100M.

**Telus' 4G Galaxy S II X (SGH-T989D)**

Telus' Galaxy S II is virtually identical to the T-Mobile variant. It has a Qualcomm 1.5 Ghz dual core processor, larger 4.52 inch screen and 1850 mAh battery, is thicker at 9.4mm and has a different design.<sup>[92]</sup> There is a chrome band around the edge and the plastic on the back has a leathery feel.<sup>[93]</sup> Instead of the hardware home button, it has the standard four capacitive buttons. The Qualcomm processor allows for 42Mbps HSPA+ download speeds that the Samsung Exynos processor is not currently capable of. It was released on October 28, 2011.

**Successor**

JK Shin, the head of "Samsung Mobile Communications", announced in May 2011 that a Samsung Galaxy S III (Galaxy S3) is planned for release in 2012.<sup>[94][95][96][97][98]</sup>

**See also**

- | List of Android devices
- | Comparison of smartphones
- | Comparison of Android devices
- | LG Optimus 2X
- | Motorola Atrix 4G
- | HTC Sensation
- | Samsung Infuse 4G
- | Galaxy Nexus

## References

1. ^ "Samsung announces UK availability of the GALAXY S II" ([http://www.samsung.com/uk/news/newsRead.do?news\\_seq=27412&gltype=localnews](http://www.samsung.com/uk/news/newsRead.do?news_seq=27412&gltype=localnews)) . *Samsung UK*. 13 April 2011. [http://www.samsung.com/uk/news/newsRead.do?news\\_seq=27412&gltype=localnews](http://www.samsung.com/uk/news/newsRead.do?news_seq=27412&gltype=localnews).
2. ^ <sup>a b</sup> "Mali-400 MP – ARM" (<http://www.arm.com/products/multimedia/mali-graphics-hardware/mali-400-mp.php>) . *ARM.com*. <http://www.arm.com/products/multimedia/mali-graphics-hardware/mali-400-mp.php>. Retrieved 6 August 2011.
3. ^ "Samsung's Galaxy S II Preliminary Performance: Mali-400MP Benchmarked" (<http://www.anandtech.com/show/4177/samsungs-galaxy-s-ii-preliminary-performance-mali400-benchmarked>) . *Anandtech*. February 14, 2011. <http://www.anandtech.com/show/4177/samsungs-galaxy-s-ii-preliminary-performance-mali400-benchmarked>.
4. ^ <sup>a b</sup> "Samsung Announces the GALAXY S II, World's Thinnest Smartphone that Will Let You Experience More with Less" ([http://www.samsung.com/au/news/newsPreviewRead.do?news\\_seq=24298](http://www.samsung.com/au/news/newsPreviewRead.do?news_seq=24298)) . *Samsung.com*. 15 February 2011. [http://www.samsung.com/au/news/newsPreviewRead.do?news\\_seq=24298](http://www.samsung.com/au/news/newsPreviewRead.do?news_seq=24298).
5. ^ "Sprint Relay Store" (<http://www.sprintrelaystore.com/>) . <http://www.sprintrelaystore.com/>. Retrieved 2011-12-15.
6. ^ "Samsung Galaxy S II gets official at MWC 2011" (<http://www.newsden.net/samsung-galaxy-sii-s2-officially-announced-hand-on-video-6607/>) . <http://www.newsden.net/samsung-galaxy-sii-s2-officially-announced-hand-on-video-6607/>.
7. ^ Andrew Hoyle (25 January 2012). "Samsung Galaxy S3 complete guide" (<http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-complete-guide-50006020/>) . CNET. <http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-complete-guide-50006020/>. Retrieved February 19, 2012.
8. ^ Ionescu, Daniel. (2011-09-14) Article stating measured dimensions ([http://www.pcworld.com/article/240075/iphone\\_4\\_worlds\\_thinnest\\_phone\\_not\\_samsung\\_galaxy\\_s\\_ii.html](http://www.pcworld.com/article/240075/iphone_4_worlds_thinnest_phone_not_samsung_galaxy_s_ii.html)) . Pcworld.com. Retrieved on 2011-11-28.
9. ^ "Samsung Exynos 4210" (<http://www.samsung.com/global/business/semiconductor/products/mobilesoc/Exynos/products4210.html>) . *Samsung Semiconductor*. <http://www.samsung.com/global/business/semiconductor/products/mobilesoc/Exynos/products4210.html>. Retrieved 29 September 2011.
10. ^ "Mobile High-Definition Link (MHL)" (<http://armdevices.net/2011/02/15/mobile-high-definition-link-mhl/>) . *ARMdevices.net*. February 15, 2011. <http://armdevices.net/2011/02/15/mobile-high-definition-link-mhl/>.
11. ^ <sup>a b c</sup> "This is how you plug your USB flash drive into the Samsung Galaxy S II" (<http://blog.gsmarena.com/this-is-how-you-plug-your-usb-flash-drive-into-the-samsung-galaxy-s-ii/>) . *GSMarena Blog*. May 12, 2011. <http://blog.gsmarena.com/this-is-how-you-plug-your-usb-flash-drive-into-the-samsung-galaxy-s-ii/>.
12. ^ <sup>a b</sup> "Samsung GALAXY S II Specification" (<http://www.samsung.com/global/microsite/galaxys2/html/specification.html>) . *Samsung.com*. <http://www.samsung.com/global/microsite/galaxys2/html/specification.html>. Retrieved April 21, 2011.
13. ^ <sup>a b</sup> Samsung Galaxy S2 review: Battery life and connectivity ([http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artic\\_pg=9](http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artic_pg=9)) . Techradar.com (2011-04-26). Retrieved on 2011-11-28.
14. ^ Samsung Galaxy S II specs ([http://www.phonearena.com/phones/Samsung-Galaxy-S-II\\_id5106](http://www.phonearena.com/phones/Samsung-Galaxy-S-II_id5106)) . Phonearena.com. Retrieved on 2011-11-28.
15. ^ "Galaxy S II gets Ice Cream Sandwich" (<http://gadgetnode.com/galaxy-s-ii-gets-ice-cream-sandwich/>) . Gadgetnode. <http://gadgetnode.com/galaxy-s-ii-gets-ice-cream-sandwich/>.
16. ^ "Samsung challenges Apple with new smartphone" (<http://www.google.com/hostednews/afp/article/ALeqM5jifPR0ObtyXNiRtsEN-1vv4BCVyg?docId=CNG.329c6cccb28bef19304d6977b2e73a97.601>) . *AFP*. April 28, 2011. <http://www.google.com/hostednews/afp/article/ALeqM5jifPR0ObtyXNiRtsEN-1vv4BCVyg?docId=CNG.329c6cccb28bef19304d6977b2e73a97.601>.
17. ^ "3m Galaxy S II units are pre-ordered by carriers globally" (<http://www.samsunghub.com/2011/05/09/3m-galaxy-s-ii-units-are-pre-ordered-by-carriers-globally/>) . *Samsung Hub*. 9 May 2011. <http://www.samsunghub.com/2011/05/09/3m-galaxy-s-ii-units-are-pre-ordered-by-carriers-globally/>.
18. ^ <sup>a b</sup> "Samsung I9103 Galaxy R preview: First look - GSMarena.com" ([http://www.gsmarena.com/samsung\\_i9103\\_galaxy\\_z-review-614.php](http://www.gsmarena.com/samsung_i9103_galaxy_z-review-614.php)) . *GSMarena.com*. 30 June 2011. [http://www.gsmarena.com/samsung\\_i9103\\_galaxy\\_z-review-614.php](http://www.gsmarena.com/samsung_i9103_galaxy_z-review-614.php). Retrieved 20 August 2011.
19. ^ <sup>a b</sup> "Samsung Galaxy R official – NVIDIA Tegra 2-toting Galaxy S 2 variant" (<http://www.intomobile.com/2011/08/10/samsung-galaxy-r-official-nvidia-tegra-2-dualcore-cpu-42-inch-display-5-megapixel-camera-goodness/>) . *IntoMobile*. 10 August 2011. <http://www.intomobile.com/2011/08/10/samsung-galaxy-r-official-nvidia-tegra-2-dualcore-cpu-42-inch-display-5-megapixel-camera-goodness/>. Retrieved 20 August 2011.
20. ^ Preview of Samsung Galaxy S II i9100. Part 1 (<http://www.mobile-review.com/review/samsung-galaxy-s2-en.shtml#2>) . Mobile-review.com (2011-05-05). Retrieved on 2011-11-28.
21. ^ Samsung Launches Galaxy S2 in India < Mobile Phones, Samsung, Mobile Phones < PC World India News < PC World.in (<http://www.pcworld.in/news/samsung-launches-galaxy-s2-india-49632011>) . Pcworld.in (2011-05-25). Retrieved on 2011-11-28.
22. ^ Samsung Galaxy S II Now Available in (Pakistan) Teletec Stores for Rs. 57,000 (<http://www.androidpakistan.com/samsung-galaxy-s2-in-pakistan-teletec-stores>) . Android Pakistan (2011-07-23). Retrieved on 2011-11-28.

23. ^ "Samsung Likes Canada More Than US, First The Galaxy S II & Now This?" (<http://www.gizmocrunch.com/android/8014-samsung-galaxy-s2-hercules-canada>) . *GizmoCrunch*. 18 August 2011. <http://www.gizmocrunch.com/android/8014-samsung-galaxy-s2-hercules-canada>. Retrieved 20 August 2011.
24. ^ [LEAK] Samsung Galaxy S2 First Hits North America July 21st (<http://www.gizmocrunch.com/android/7577-samsung-galaxy-s2-release-date>) . Gizmocrunch.com (2011-07-14). Retrieved on 2011-11-28.
25. ^ "Samsung Galaxy S II con Telcel \$9,249.00 MXP" (<http://www.poderpda.com/plataformas/android/samsung-galaxy-s-ii-llega-a-mexico-con-telcel/>) . *PoderPDA.com*. 28 June 2011. <http://www.poderpda.com/plataformas/android/samsung-galaxy-s-ii-llega-a-mexico-con-telcel/>.
26. ^ Galaxy S II finally lands on American shores for Sprint, T-Mobile and AT&T (<http://www.engadget.com/2011/08/30/galaxy-s-ii-finally-lands-on-american-shores-for-sprint-t-mobile/>) . Engadget. Retrieved on 2011-11-28.
27. ^ Samsung Galaxy S II: availability and pricing from operators « Cellular « MyBroadband Tech and IT News (<http://mybroadband.co.za/news/cellular/26743-samsung-galaxy-s-ii-availability-and-pricing-from-operators.html>) . Mybroadband.co.za (2011-06-14). Retrieved on 2011-11-28.
28. ^ <sup>a</sup> <sup>b</sup> "Samsung's Exynos 4210 flexes 3D gaming muscle at GDC 2011 (video)" (<http://www.engadget.com/2011/03/03/samsungs-exynos-4210-flexes-3d-gaming-muscle-at-gdc-2011-video/>) . *Engadget*. 3 March 2011. <http://www.engadget.com/2011/03/03/samsungs-exynos-4210-flexes-3d-gaming-muscle-at-gdc-2011-video/>.
29. ^ "Samsung dubs its mobile processors Exynos, dual-core 4210 (formerly Orion) arriving next month" (<http://www.engadget.com/2011/02/10/samsung-dubs-its-mobile-processors-exynos-dual-core-4210-forme/>) . *Engadget*. 10 February 2011. <http://www.engadget.com/2011/02/10/samsung-dubs-its-mobile-processors-exynos-dual-core-4210-forme/>.
30. ^ "NEON – ARM" (<http://mobile.arm.com/products/processors/technologies/neon.php?tab=Why+NEON>) . *ARM.com*. <http://mobile.arm.com/products/processors/technologies/neon.php?tab=Why+NEON>.
31. ^ "NVIDIA's Tegra 2 Take Two: More Architectural Details and Design Wins" (<http://www.anandtech.com/show/4098/nvidias-tegra-2-take-two-more-architectural-details-and-design-wins/2>) . *Anandtech*. 5 January 2011. <http://www.anandtech.com/show/4098/nvidias-tegra-2-take-two-more-architectural-details-and-design-wins/2>.
32. ^ Texas Instruments OMAP#OMAP 4
33. ^ UK ASA adjudication: Atrix is not world's most powerful as Samsung S II is more powerful ([http://www.asa.org.uk/ASA-action/Adjudications/2011/8/Motorola-Mobility-UK-Ltd/SHP\\_ADJ\\_161483.aspx](http://www.asa.org.uk/ASA-action/Adjudications/2011/8/Motorola-Mobility-UK-Ltd/SHP_ADJ_161483.aspx)) . *Asa.org.uk*. Retrieved on 2011-11-28.
34. ^ "TI OMAP-powered Samsung Galaxy S II i9100G pops up quietly" ([http://www.gsmarena.com/ti\\_omappowered\\_samsung\\_galaxy\\_s\\_ii\\_i9100g\\_pops\\_up\\_quietly-news-3371.php](http://www.gsmarena.com/ti_omappowered_samsung_galaxy_s_ii_i9100g_pops_up_quietly-news-3371.php)) . 11 November 2011. [http://www.gsmarena.com/ti\\_omappowered\\_samsung\\_galaxy\\_s\\_ii\\_i9100g\\_pops\\_up\\_quietly-news-3371.php](http://www.gsmarena.com/ti_omappowered_samsung_galaxy_s_ii_i9100g_pops_up_quietly-news-3371.php).
35. ^ "<http://www.oled-info.com/super-amoled-plus>" (<http://www.oled-info.com/super-amoled-plus>) . *OLED-Info*. <http://www.oled-info.com/super-amoled-plus>. Retrieved 2011-12-04.
36. ^ Galaxy S II display reportedly has yellow spots, we test – GSMarena.com news ([http://www.gsmarena.com/samsung\\_galaxy\\_s\\_ii\\_display\\_plagued\\_by\\_uneven\\_brightness\\_yellow\\_tint-news-2719.php](http://www.gsmarena.com/samsung_galaxy_s_ii_display_plagued_by_uneven_brightness_yellow_tint-news-2719.php)) . *Gsmarena.com*. Retrieved on 2011-11-28.
37. ^ <sup>a</sup> <sup>b</sup> "SAMSUNG GALAXY S II – REAL USER REVIEW PART 3: MEDIA" (<http://blog.clove.co.uk/2011/05/31/samsung-galaxy-sii-real-user-review-part-3-media/>) . *Clove Technology's Blog*. 17 June 2011. <http://blog.clove.co.uk/2011/05/31/samsung-galaxy-sii-real-user-review-part-3-media/>.
38. ^ "Wolfson's innovative ultra low power audio hub selected for Samsung's latest Bada and Android smartphones" ([http://www.wolfsonmicro.com/media\\_centre/item/wolfsons\\_innovative\\_ultra\\_low\\_power\\_audio\\_hub\\_selected\\_for\\_samsungs\\_latest/](http://www.wolfsonmicro.com/media_centre/item/wolfsons_innovative_ultra_low_power_audio_hub_selected_for_samsungs_latest/)) . *Wolfson Microelectronics*. 17 June 2011. [http://www.wolfsonmicro.com/media\\_centre/item/wolfsons\\_innovative\\_ultra\\_low\\_power\\_audio\\_hub\\_selected\\_for\\_samsungs\\_latest/](http://www.wolfsonmicro.com/media_centre/item/wolfsons_innovative_ultra_low_power_audio_hub_selected_for_samsungs_latest/).
39. ^ "Silicon Summary in the Samsung Galaxy S II » Recent Teardowns » Chipworks" (<http://www.chipworks.com/en/technical-competitive-analysis/resources/recent-teardowns/2011/07/silicon-summary-in-the-samsung-galaxy-s-ii/>) . *Chipworks*. 25 July 2010. <http://www.chipworks.com/en/technical-competitive-analysis/resources/recent-teardowns/2011/07/silicon-summary-in-the-samsung-galaxy-s-ii/>.
40. ^ <sup>a</sup> <sup>b</sup> "Samsung GALAXY S II Features" (<http://www.samsung.com/global/microsite/galaxys2/html/feature.html>) . *Samsung.com*. <http://www.samsung.com/global/microsite/galaxys2/html/feature.html>. Retrieved 21 April 2011.
41. ^ "Google unveils first Android NFC phone — but Nexus S is limited to tag reading only for now" (<http://www.nearfieldcommunicationsworld.com/2010/12/07/35385/google-unveils-first-android-nfc-phone-but-nexus-s-is-limited-to-tag-reading-only-for-now/>) . *NFC World*. 17 June 2011. <http://www.nearfieldcommunicationsworld.com/2010/12/07/35385/google-unveils-first-android-nfc-phone-but-nexus-s-is-limited-to-tag-reading-only-for-now/>.
42. ^ "No NFC for UK Samsung Galaxy S2" ([http://www.knowyourmobile.com/blog/867287/no\\_nfc\\_for\\_uk\\_samsung\\_galaxy\\_s2.html](http://www.knowyourmobile.com/blog/867287/no_nfc_for_uk_samsung_galaxy_s2.html)) . *Know Your Mobile*. 28 April 2011. [http://www.knowyourmobile.com/blog/867287/no\\_nfc\\_for\\_uk\\_samsung\\_galaxy\\_s2.html](http://www.knowyourmobile.com/blog/867287/no_nfc_for_uk_samsung_galaxy_s2.html).
43. ^ "Samsung officially confirms NFC-enabled Galaxy S II" (<http://www.techradar.com/news/phone-and-communications/mobile-phones/samsung-officially-confirms-nfc-enabled-galaxy-s-ii-954965>) . *techradar.com*. 12 May 2011. <http://www.techradar.com/news/phone-and-communications/mobile-phones/samsung-officially-confirms-nfc-enabled-galaxy-s-ii-954965>.
44. ^ Mobile High-Definition Link (MHL) (<http://www.youtube.com/watch?v=ZtwTcnR0hqA>) . YouTube (2011-02-15). Retrieved on 2011-11-28.
45. ^ "Watch Samsung Galaxy S II connect to an HDTV through its MHL port [VIDEO (<http://blog.gsmarena.com/watch-samsung-galaxy-s-ii-connect-to-hdtv-through-its-mhl-port-video/>) ]". *GSMarena Blog*. 13 May 2011. <http://blog.gsmarena.com/watch-samsung-galaxy-s-ii-connect-to-hdtv-through-its-mhl-port-video/>.

46. ^ Samsung Galaxy S2 USB OTG demo (<http://www.youtube.com/watch?v=giJXF5pIITc>) . YouTube. Retrieved on 2011-11-28.
47. ^ Broadcom's New Combo Chip Integrates 802.11n Wi-Fi, Bluetooth 3.0 + HS and FM to Bring New Multimedia Applications to Smartphones, Tablets and Other Mobile Devices (<http://www.broadcom.com/press/release.php?id=s549642>) , Broadcom press release
48. ^ <sup>a b c</sup> (French)"Des accessoires pour le Samsung Galaxy S2" (<http://www.mysamsunggalaxys2.com>) . *Le Journal Du Geek*. 17 March 2011. <http://www.mysamsunggalaxys2.com>.
49. ^ "Samsung Galaxy S™ II, Epic™ 4G Touch" (<http://www.samsung.com/us/mobile/cell-phones/SPH-D710ZKASPR>) . *Samsung Mobile*. <http://www.samsung.com/us/mobile/cell-phones/SPH-D710ZKASPR>. Retrieved 1 September 2011.
50. ^ <sup>a b</sup> "Samsung Galaxy S™ II, available at AT&T" (<http://www.samsung.com/us/mobile/cell-phones/SGH-I777ZKAATT>) . *Samsung Mobile*. <http://www.samsung.com/us/mobile/cell-phones/SGH-I777ZKAATT>. Retrieved 1 September 2011.
51. ^ "Samsung's Galaxy S II receives Android 2.3.6 update" (<http://news.in.msn.com/technology/article.aspx?cp-documentid=5628795>) . MSN India. 28/11/2011. <http://news.in.msn.com/technology/article.aspx?cp-documentid=5628795>. Retrieved December 21, 2011.
52. ^ "Samsung Galaxy SII Ice Cream Sandwich Roll Out Begins" (<http://www.t3.com/news/samsung-galaxy-sii-ice-cream-sandwich-roll-out-begins>) . T3. 13/03/2012. <http://www.t3.com/news/samsung-galaxy-sii-ice-cream-sandwich-roll-out-begins>. Retrieved March 13, 2012.
53. ^ "Samsung Galaxy S II shows off motion-zoom option in TouchWiz 4.0 (video)" (<http://www.engadget.com/2011/03/29/samsung-galaxy-s-ii-shows-off-gyro-zoom-option-in-touchwiz-4-0/>) . *Engadget*. 29 March 2011. <http://www.engadget.com/2011/03/29/samsung-galaxy-s-ii-shows-off-gyro-zoom-option-in-touchwiz-4-0/>.
54. ^ "Samsung Galaxy S2 Touchwiz 4.0 Special Features Demo [Exclusive (<http://androidcommunity.com/samsung-galaxy-s2-touchwiz-4-0-special-features-demo-exclusive-20110325/>) ]". *Android Community*. 25 March 2011. <http://androidcommunity.com/samsung-galaxy-s2-touchwiz-4-0-special-features-demo-exclusive-20110325/>.
55. ^ <sup>a b</sup> "Samsung Galaxy S2: what you need to know" (<http://mwc2011.techradar.com/2011/02/samsung-galaxy-s2-what-you-need-to-know/>) . *TechRadar*. 14 February 2011. <http://mwc2011.techradar.com/2011/02/samsung-galaxy-s2-what-you-need-to-know/>.
56. ^ Samsung Kies Air Demo (Samsung Galaxy II) ([http://www.youtube.com/watch?v=\\_qah8q631Jk](http://www.youtube.com/watch?v=_qah8q631Jk)) . YouTube. Retrieved on 2011-11-28.
57. ^ Samsung Galaxy SII – Voice Translator Demo (<http://www.youtube.com/watch?v=YjqwRPUHhBU>) . YouTube. Retrieved on 2011-11-28.
58. ^ "Big news for Android at Mobile World Congress" (<http://blogs.sybase.com/afaria/2011/02/big-news-for-android-at-mobile-world-congress/>) . *Sybase Enterprise Mobility Blog*. 13 February 2011. <http://blogs.sybase.com/afaria/2011/02/big-news-for-android-at-mobile-world-congress/>.
59. ^ "AnyConnect for Samsung Devices – Android Market" (<https://market.android.com/details?id=com.cisco.anyconnect.vpn.android>) . *Android Market (online)*. <https://market.android.com/details?id=com.cisco.anyconnect.vpn.android>. Retrieved 20 August 2011.
60. ^ "Samsung I9100 Galaxy S II preview: Second encounter – Page 4" ([http://www.gsmarena.com/samsung\\_i9100\\_galaxy\\_s\\_ii-review-588p4.php](http://www.gsmarena.com/samsung_i9100_galaxy_s_ii-review-588p4.php)) . *GSMarena.com*. 13 April 2011. [http://www.gsmarena.com/samsung\\_i9100\\_galaxy\\_s\\_ii-review-588p4.php](http://www.gsmarena.com/samsung_i9100_galaxy_s_ii-review-588p4.php).
61. ^ Samsung Galaxy S II Preview ([http://www.youtube.com/watch?feature=player\\_detailpage&v=y4d-wWCf4CQ#t=416s](http://www.youtube.com/watch?feature=player_detailpage&v=y4d-wWCf4CQ#t=416s)) . YouTube (2011-04-15). Retrieved on 2011-11-28.
62. ^ "HTC Sensation Review Vs Samsung Galaxy S II: Video playback shootout « Clove Technology's Blog" (<http://blog.clove.co.uk/2011/07/06/htc-sensation-review-vs-samsung-galaxy-s-ii-video-playback-shootout/>) . *Clove*. 16 July 2011. <http://blog.clove.co.uk/2011/07/06/htc-sensation-review-vs-samsung-galaxy-s-ii-video-playback-shootout/>.
63. ^ "CyanogenMod 7 for Samsung Galaxy S2 (II): Development Already Started!" (<http://www.inspiredgeek.com/2011/06/08/cyanogenmod-7-for-samsung-galaxy-s2-ii-development-already-started/>) . *Inspired Geek*. 8 June 2011. <http://www.inspiredgeek.com/2011/06/08/cyanogenmod-7-for-samsung-galaxy-s2-ii-development-already-started/>.
64. ^ "CyanogenMod coming to the Galaxy S 2, thanks to Samsung" (<http://www.androidcentral.com/cyanogenmod-coming-galaxy-sii-thanks-samsung>) . *Android Central*. 6 June 2011. <http://www.androidcentral.com/cyanogenmod-coming-galaxy-sii-thanks-samsung>.
65. ^ Savov, Vlad (28 April 2011). "Samsung Galaxy S II review" (<http://www.engadget.com/2011/04/28/samsung-galaxy-s-ii-review/>) . *Engadget*. <http://www.engadget.com/2011/04/28/samsung-galaxy-s-ii-review/>.
66. ^ Westaway, Luke (6 May 2011). "Samsung Galaxy S 2 review" (<http://reviews.cnet.co.uk/mobile-phones/samsung-galaxy-s-2-review-50002442>) . *CNET UK*. <http://reviews.cnet.co.uk/mobile-phones/samsung-galaxy-s-2-review-50002442>. Retrieved 14 May 2011.
67. ^ Beavis, Gareth (26 April 2011). "Samsung Galaxy S2 Review" ([http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artc\\_pg=1](http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artc_pg=1)) . *TechRadar*. [http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artc\\_pg=1](http://www.techradar.com/reviews/phones/mobile-phones/samsung-galaxy-s2-930907/review?artc_pg=1). Retrieved 14 May 2011.
68. ^ "Galaxy S II Web Browser Speed Test (Video)" (<http://pocketnow.com/android/galaxy-s-ii-web-browser-speed-test-video>) . *Pocketnow.com*. 11 May 2011. <http://pocketnow.com/android/galaxy-s-ii-web-browser-speed-test-video>.
69. ^ Davies, Chris (26 April 2011). "Samsung Galaxy S II Review" (<http://www.slashgear.com/samsung-galaxy-s-ii-review-26148446/>) . *SlashGear*. <http://www.slashgear.com/samsung-galaxy-s-ii-review-26148446/>. Retrieved 14 May 2011.
70. ^ "Samsung i9100 Galaxy S II review: Brightest star – Final words" ([http://www.gsmarena.com/samsung\\_i9100\\_galaxy\\_s\\_ii-review-597p12.php](http://www.gsmarena.com/samsung_i9100_galaxy_s_ii-review-597p12.php)) . *GSMarena*. 13 May 2011. [http://www.gsmarena.com/samsung\\_i9100\\_galaxy\\_s\\_ii-review-597p12.php](http://www.gsmarena.com/samsung_i9100_galaxy_s_ii-review-597p12.php).
71. ^ "Galaxy S2 sales to consumers top 1 mln in S. Korea" (<http://www.antaraneews.com/en/news/72648/galaxy-s2-sales-to-consumers-top-1-mln-in-s-korea>) . *Antara News*. 13 June 2011. <http://www.antaraneews.com/en/news/72648/galaxy-s2-sales-to-consumers-top-1-mln-in-s-korea>.

72. ^ "Galaxy S 2 Set a Record of 3 Million Global Sales in 55 Days" (<http://www.flickr.com/photos/samsungtomorrow/5895933600/>) . *SamsungTomorrow Flickr*. 30 June 2011. <http://www.flickr.com/photos/samsungtomorrow/5895933600/>.
73. ^ "Samsung Galaxy S2: Sales figures out of this world" (<http://www.mobot.net/samsung-galaxy-s2-sales-figures-world-27840>) . *Mobot.net*. 8 August 2011. <http://www.mobot.net/samsung-galaxy-s2-sales-figures-world-27840>.
74. ^ "Samsung moves ten million Galaxy S II smartphones, pats itself on the back" (<http://www.engadget.com/2011/09/25/samsung-moves-10-million-galaxy-s-iis-pats-itself-on-the-back/>) . *Engadget*. 25 September 2011. <http://www.engadget.com/2011/09/25/samsung-moves-10-million-galaxy-s-iis-pats-itself-on-the-back/>.
75. ^ 28 October 2011, Samsung overtakes Apple in smartphone sales (<http://www.bbc.co.uk/news/business-15489523>) , BBC News
76. ^ "Samsung I9103 Galaxy R – Full phone specifications" ([http://www.gsmarena.com/samsung\\_i9103\\_galaxy\\_r-3967.php](http://www.gsmarena.com/samsung_i9103_galaxy_r-3967.php)) . *GSMarena.com*. [http://www.gsmarena.com/samsung\\_i9103\\_galaxy\\_r-3967.php](http://www.gsmarena.com/samsung_i9103_galaxy_r-3967.php). Retrieved 22 October 2011.
77. ^ "Samsung takes the wraps off the Galaxy R smartphone" ([http://www.gsmarena.com/samsung\\_takes\\_the\\_wraps\\_off\\_the\\_galaxy\\_r\\_smartphone-news-2947.php](http://www.gsmarena.com/samsung_takes_the_wraps_off_the_galaxy_r_smartphone-news-2947.php)) . *GSMarena.com*. 30 July 2011. [http://www.gsmarena.com/samsung\\_takes\\_the\\_wraps\\_off\\_the\\_galaxy\\_r\\_smartphone-news-2947.php](http://www.gsmarena.com/samsung_takes_the_wraps_off_the_galaxy_r_smartphone-news-2947.php). Retrieved 20 August 2011.
78. ^ "Samsung Galaxy W I8150 – Full phone specifications" ([http://www.gsmarena.com/samsung\\_galaxy\\_w\\_i8150-4114.php](http://www.gsmarena.com/samsung_galaxy_w_i8150-4114.php)) . *GSMarena.com*. [http://www.gsmarena.com/samsung\\_galaxy\\_w\\_i8150-4114.php](http://www.gsmarena.com/samsung_galaxy_w_i8150-4114.php). Retrieved 22 October 2011.
79. ^ Samsung Galaxy W i8150 video preview ENG by HDblog ([http://www.youtube.com/watch?v=RcYUQ\\_VEfLc](http://www.youtube.com/watch?v=RcYUQ_VEfLc)) . YouTube (2011-08-25). Retrieved on 2011-11-28.
80. ^ Bunker, Adam (8 September 2011). "Samsung Galaxy S2 Mini: April release date leaked by Three" (<http://www.t3.com/news/samsung-galaxy-s2-mini-april-release-date-leaked-by-three>) . *T3 (t3.com)*. <http://www.t3.com/news/samsung-galaxy-s2-mini-april-release-date-leaked-by-three>. Retrieved 22 October 2011.
81. ^ Hollister, Sean (20 May 2011). "Samsung Galaxy S II Mini leaks out for Three, plus Nokia X7, Flyer and PlayBook release dates in UK" (<http://www.engadget.com/2011/03/20/samsung-galaxy-s-ii-mini-leaks-out-for-three-uk-plus-nokia-x7/>) . *Engadget*. <http://www.engadget.com/2011/03/20/samsung-galaxy-s-ii-mini-leaks-out-for-three-uk-plus-nokia-x7/>. Retrieved 22 October 2011.
82. ^ Samsung Galaxy Player, Galaxy Tab 8.9-inch & 4G Phones Unveiled < Mobile Phones, Cell Phones, Samsung, Android, Mobile Phones, Tablets < PC World India News < PC World.in (<http://www.pcworld.in/news/samsung-galaxy-player-galaxy-tab-89-inch-4g-phones-unveiled-55472011>) . Pworld.in (2011-09-27). Retrieved on 2011-11-28.
83. ^ Samsung Galaxy S II HD LTE and Galaxy S II LTE official (<http://www.slashgear.com/samsung-galaxy-s-ii-hd-lte-and-galaxy-s-ii-lte-official-26182723/>) . *SlashGear*. Retrieved on 2011-11-28.
84. ^ "Samsung Galaxy S™ II, Epic™ 4G Touch fact sheet – Delivering rich content at blazing fast speeds" (<http://newsroom.sprint.com/news/samsung-galaxy-s-ii-epic-4g-touch-fact-sheet.htm>) . *Sprint Newsroom*. 30 August 2011. <http://newsroom.sprint.com/news/samsung-galaxy-s-ii-epic-4g-touch-fact-sheet.htm>. Retrieved 1 September 2011.
85. ^ "Sprint First U.S. Carrier to Debut Galaxy S II With Samsung Epic 4G Touch" (<http://newsroom.sprint.com/news/sprint-first-us-carrier-to-debut-galaxy-s-ii-with-samsung-epic-4g-touch.htm>) . *Sprint Newsroom*. 30 August 2011. <http://newsroom.sprint.com/news/sprint-first-us-carrier-to-debut-galaxy-s-ii-with-samsung-epic-4g-touch.htm>. Retrieved 1 September 2011.
86. ^ "Sprint Epic 4G Touch Lacking NFC Unlike AT&T and T-Mobile Models" (<http://pocketnow.com/android/sprint-epic-4g-touch-lacking-nfc-unlike-att-and-t-mobile-models>) . *Pocketnow*. 3 September 2011. <http://pocketnow.com/android/sprint-epic-4g-touch-lacking-nfc-unlike-att-and-t-mobile-models>.
87. ^ "Samsung Galaxy S II Coming Soon to T-Mobile" (<http://newsroom.t-mobile.com/articles/T-Mobile-confirms-Samsung-Galaxy-S-II>) . *T-Mobile*. 30 August 2011. <http://newsroom.t-mobile.com/articles/T-Mobile-confirms-Samsung-Galaxy-S-II>. Retrieved 1 September 2011.
88. ^ <sup>a</sup> <sup>b</sup> "Samsung Galaxy S II logs confirm NFC support for AT&T, none for Sprint" (<http://www.engadget.com/2011/08/31/samsung-galaxy-s-ii-logs-confirm-nfc-support-for-att-and-none-for/>) . 31 August 2011. <http://www.engadget.com/2011/08/31/samsung-galaxy-s-ii-logs-confirm-nfc-support-for-att-and-none-for/>.
89. ^ "HTC Amaze, Samsung Galaxy S II: T-Mobile's fastest 4G phones yet" (<http://latimesblogs.latimes.com/technology/2011/09/t-mobiles-new-4g-phones-htc-amaze-and-samsung-galaxy-s-ii.html>) . *LA Times*. 26 September 2011. <http://latimesblogs.latimes.com/technology/2011/09/t-mobiles-new-4g-phones-htc-amaze-and-samsung-galaxy-s-ii.html>.
90. ^ <http://www.samsung.com/us/mobile/cell-phones/SGH-I927ZKAATT>
91. ^ "Confirmed: Rogers launching LTE Samsung Galaxy S II, plus LTE network in Toronto goes live September 28th." (<http://mobilesyrup.com/2011/08/30/confirmed-rogers-launching-lte-samsung-galaxy-s-ii-plus-lte-network-in-toronto-goes-live-september-28th/>) . *MobileSyrup*. 30 August 2011. <http://mobilesyrup.com/2011/08/30/confirmed-rogers-launching-lte-samsung-galaxy-s-ii-plus-lte-network-in-toronto-goes-live-september-28th/>.
92. ^ "4G Samsung Galaxy S II X – Bientôt disponible" ([http://www.telusmobility.com/en/AB/samsung\\_galaxy\\_s\\_II\\_x/index.shtml](http://www.telusmobility.com/en/AB/samsung_galaxy_s_II_x/index.shtml)) . *Telus*. [http://www.telusmobility.com/en/AB/samsung\\_galaxy\\_s\\_II\\_x/index.shtml](http://www.telusmobility.com/en/AB/samsung_galaxy_s_II_x/index.shtml). Retrieved 27 September 2011.
93. ^ "Video: TELUS Samsung Galaxy S II X quick overview" (<http://mobilesyrup.com/2011/09/22/video-telus-samsung-galaxy-s-ii-x-quick-overview/>) . *MobileSyrup*. 22 September 2011. <http://mobilesyrup.com/2011/09/22/video-telus-samsung-galaxy-s-ii-x-quick-overview/>.
94. ^ Merrett, Andy (1 June 2011). "Samsung Galaxy S3 to launch in early 2012, 4G tablet coming sooner" (<http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-to-launch-in-early-2012-4g-tablet-coming-sooner-50003954/>) . *crave cnet 2012*. CNET UK. <http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-to-launch-in-early-2012-4g-tablet-coming-sooner-50003954/>. Retrieved 4 August 2011.

95. ^ Kennemer, Quentyn (30 May 2011). "Samsung Prepping Samsung Galaxy S III for First Half of 2012" (<http://phandroid.com/2011/05/30/samsung-prepping-samsung-galaxy-s-iii-for-first-half-of-2012/>) . *phandroid gal 2012*. phandroid.com. <http://phandroid.com/2011/05/30/samsung-prepping-samsung-galaxy-s-iii-for-first-half-of-2012/>. Retrieved 4 August 2011.
96. ^ [http://www.gsmarena.com/samsung\\_galaxy\\_s\\_iii-4238.php](http://www.gsmarena.com/samsung_galaxy_s_iii-4238.php)
97. ^ "Samsung Galaxy S3: what you need to know" (<http://www.techradar.com/news/phone-and-communications/mobile-phones/samsung-galaxy-s3-what-you-need-to-know-1051525>) . Techradar. Gary Cutlack. <http://www.techradar.com/news/phone-and-communications/mobile-phones/samsung-galaxy-s3-what-you-need-to-know-1051525>. Retrieved February 28, 2012.
98. ^ Andrew Hoyle (25 January 2012). "Samsung Galaxy S3 complete guide" (<http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-complete-guide-50006020/>) . CNET. <http://crave.cnet.co.uk/mobiles/samsung-galaxy-s3-complete-guide-50006020/>. Retrieved February 28, 2012.

## External links

‡ [Samsung Galaxy S II Homepage \(http://www.samsung.com/global/microsite/galaxys2/html/index.html\)](http://www.samsung.com/global/microsite/galaxys2/html/index.html)

Retrieved from "[http://en.wikipedia.org/w/index.php?title=Samsung\\_Galaxy\\_S\\_II&oldid=482847240](http://en.wikipedia.org/w/index.php?title=Samsung_Galaxy_S_II&oldid=482847240)"

Categories: [Android devices](#) | [Samsung mobile phones](#) | [Products introduced in 2011](#)

---

‡ This page was last modified on 20 March 2012 at 05:41.

‡ Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. See Terms of use for details. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.