

= iPhone 4S =

The iPhone 4S ( retroactively stylized with a lowercase ' s ' as iPhone 4s as of September 2013 ) is a smartphone that was designed and marketed by Apple Inc . It is the fifth generation of the iPhone , succeeding the iPhone 4 and preceding the iPhone 5 . Announced on October 4 , 2011 at Apple 's Cupertino campus , its media coverage was accompanied by the death of former Apple CEO and co @-@ founder Steve Jobs on the following day .

Available for pre @-@ order on October 7 , 2011 and coming to mainstream availability in retail stores on October 14 , 2011 in the United States , Australia , Canada , the United Kingdom , France , Germany , and Japan , sales peaked over its predecessor with over a million sales in the first twenty @-@ four hours of preorder availability and over four million sales in the first four days of retail availability . Further worldwide rollout , including 22 additional countries on October 28 , came over the next several months .

This iPhone was named " 4S " where " S " stood for Siri ( Apple CEO Tim Cook confirmed that during the Q & A session at the D10 conference in May 2012 ) , an iPhone 4S @-@ exclusive intelligent personal assistant that was later included in future generations of mobile Apple products . Retaining the most of the external design of the iPhone 4 , the 4S hosted revised hardware specifications , most notably an upgrade to the Apple A5 chipset , and an 8 @-@ megapixel camera with 1080p video recording . It debuted with iOS 5 , the fifth major version of iOS , Apple 's mobile operating system , that introduced features including iCloud , iMessage , Notification Center , Reminders , and Twitter integration .

Reception to the iPhone 4S was generally favorable . Reviewers noted Siri , the new camera , and processing speeds as significant advantages over the prior model . It was succeeded by the iPhone 5 as Apple 's flagship phone on September 12 , 2012 . The iPhone 4S remained in production , albeit being sold with reduced storage ( from 16 / 32 / 64 GB down to 8 GB . ) It was officially discontinued on September 9 , 2014 , following the announcement of the iPhone 6 but is currently supported as of iOS 9 . However iPhone 4S is still being sold in some countries at low prices such as Philippines . During the course of its lifetime , the iPhone 4S is the best @-@ selling iPhone ever produced and it is the first ( and , by the time , the only ) iPhone to support five major versions of iOS : 5 , 6 , 7 , 8 , and 9 . It is also the last iPhone to have the original 30 pin connector as it was replaced by the Lightning Connector when the iPhone 5 was released .

= = History = =

As early as May 2011 , some leaks had a fairly accurate description of the iPhone 4S including the name " iPhone 4S " , the Apple A5 chip , HSDPA , new camera , and Sprint carrying .

The iPhone 4S was unveiled at Apple 's " Let 's Talk iPhone " event on October 4 , 2011 , on the Apple Campus in Cupertino , California . The keynote was the first which Tim Cook gave since the Verizon keynote earlier in the year . It was also Cook 's first launch without Apple co @-@ founder Steve Jobs , whose health was deteriorating , and who died the day after the announcement of the iPhone 4S . Tim Carmody of Wired praised Cook for focusing on company achievements , calling him a " global business thinker " and a " taskmaster " .

At the " Let 's Talk iPhone " event held by Apple on October 4 , 2011 , Mike Capps demonstrated Epic Games ' Infinity Blade II , the sequel to Infinity Blade , on an iPhone 4S . Capps boasted that the game uses Epic Games ' Unreal Engine 3 and features the same graphic techniques used in the Xbox 360 game Gears of War 3 .

Speculation about Apple 's next generation phone , including various specifications and a predicted name " iPhone 5 " , had been widespread in the time preceding its debut . After the iPhone 4S was announced , it was considered by some media to be a disappointment , due to the expected release of an iPhone 5 .

There were no external differences between the iPhone 4 CDMA model and the iPhone 4S , with the exception of a SIM card slot on the iPhone 4S . All changes were internal ( slight external differences between the iPhone 4 GSM model and the iPhone 4S exist , as said differences existed

between the CDMA and GSM models of the iPhone 4 ) .

On September 10 , 2013 the iPhone 4S name was re @-@ stylised as iPhone 4s , using a lower case ' s ' to reflect the names of the newly announced iPhone 5s and iPhone 5c . This was unusual for Apple as an upper case ' S ' had been used since the introduction of the iPhone 3GS in 2009 .

On September 9 , 2014 , the iPhone 4S was discontinued following the reveal of the iPhone 6 and the iPhone 6 Plus .

On June 13 , 2016 , following the release of iOS 10 , Apple have dropped support on the iPhone 4S , making iOS 9 the last version supporting the iPhone 4S .

= = Features = =

= = = Software = = =

The iPhone 4S runs iOS , Apple 's mobile operating system . The user interface of iOS is based on the concept of direct manipulation , using multi @-@ touch gestures . Interface control elements consist of sliders , switches , and buttons . The response to user input is immediate and provides a fluid interface . Interaction with the OS includes gestures such as swipe , tap , pinch , and reverse pinch , all of which have specific definitions within the context of the iOS operating system and its multi @-@ touch interface . Internal accelerometers are used by some applications to respond to shaking the device ( one common result is the undo command ) or rotating it in three dimensions ( one common result is switching from portrait to landscape mode ) .

The iPhone 4S was first shipped with iOS 5 , which was released on October 12 , 2011 , 2 days before the release of the device . The 4S uses iOS 5 @.@ 1 @.@ 1 , which was released on May 7 , 2012 . As of September 2015 , the device can be updated to iOS 9 . It can act as a hotspot , sharing its internet connection over WiFi , Bluetooth , or USB , and also accesses the App Store , a digital application distribution platform for iOS developed and maintained by Apple . The service allows users to browse and download applications from the iTunes Store that were developed with Xcode and the iOS SDK and were published through Apple .

The iPhone 4S can play music , movies , television shows , ebooks , audiobooks , and podcasts and can sort its media library by songs , artists , albums , videos , playlists , genres , composers , podcasts , audiobooks , and compilations . Options are always presented alphabetically , except in playlists , which retain their order from iTunes . The iPhone 4S uses a large font that allows users plenty of room to touch their selection . Users can rotate their device horizontally to landscape mode to access Cover Flow . Like on iTunes , this feature shows the different album covers in a scroll @-@ through photo library . Scrolling is achieved by swiping a finger across the screen . Alternatively , headset controls can be used to pause , play , skip , and repeat tracks . On the 4S , the volume can be changed with the included Apple Earphones , and the Voice Control feature can be used to identify a track , play songs in a playlist or by a specific artist , or create a Genius playlist .

The iPhone 4S introduced a new automated voice control system called Siri , that allows the user to give the iPhone commands , which it can execute and respond to . For example , iPhone commands such as " What is the weather going to be like ? " will generate a response such as " The weather is to be cloudy and rainy and drop to 54 degrees today . " These commands can vary greatly and control almost every application of the phone . The commands given do not have to be specific and can be used with natural language . Siri can be accessed by holding down the home button for a short amount of time ( compared to using the regular function ) . An impact of Siri , as shown by Apple video messages , is that it is much easier for people to use device functions while driving , exercising , or when they have their hands full . It also means people with trouble reading , seeing , or typing can access the phone more easily .

On the iPhone 4S , texting can be aided by the voice assistant , which allows speech @-@ to @-@ text . In addition to regular texting , messaging on the iPhone 4S is supported by iMessage , a specialized instant messaging program and service that allows unlimited texting to other Apple iOS

5 products . This supports the inclusion of media in text messages , integration with the device 's voice controlled software assistant , and read receipts for sent messages . Input to the computer comes from a keyboard displayed on the multi @-@ touch screen or by voice @-@ to text by speaking into the microphone . Entered text is supported by predictive and suggestion software as well as a spell @-@ checker , that includes many regional dialects like Swiss spoken French .

At announcement , plans were in place for the iPhone 4S to support many languages . Different features have different language requirements , such as keyboards compared to the word predictor and spell @-@ checker , which needs a large dictionary of words . Language support is related to the iOS 5 operating system that the device launched with , although not always . The Siri digital assistant supported French , English , and German at launch . Since it uses a software based keyboard supported by the multi @-@ touch display , it can support many different keyboard layouts without having to change physically . The iPhone 4S can display different languages and scripts at the same time .

On September 19 , 2012 , iOS 6 was released to the iPhone 4S among other compatible iOS device as an over the air ( OTA ) upgrade package . According to Apple the update contains 200 new features and tweaks , which includes a new maps app , dubbed Apple Maps , Facebook integration and Passbook , an application that allows users to store their coupons , boarding passes and tickets digitally . On September 18 , 2013 , Apple released iOS 7 and the iPhone 4S is among other compatible iOS devices that also receive the update without any lagging issues compared to the iPhone 4 . Although the device has improved performance over iOS 7 , some newer features that were released to newer models such as AirDrop and CarPlay were not supported . The iPhone 4s can also run iOS 8 which was released on September 17 , 2014 . Given that the device has been supported for more than 3 years , some newer features of the software such as Apple Pay are not supported . It is also unable to work with Apple Watch due to the relatively aged hardware . In fact , some users often reported that performance on the 4s is very slow , similar to how iOS 7 ran on the iPhone 4 , and suggesting that they should not upgrade due to battery draining issues and hanging up on calls . Meanwhile , Apple released iOS 8 @.@ 1 @.@ 1 , which brought slight improvements to the phone and the iPad 2 , but it still did not run as fast as newer models .

On June 8 , 2015 , Apple announced at the WWDC that the iPhone 4S would support iOS 9 . This makes it the first and only iPhone to support 5 major versions of iOS , and the second iOS device to support 5 major versions ( iOS 9 will support the iPad 2 as well , bringing its total up to six major versions of iOS supported ) . Although the iPhone 4S has begun its limitations with iOS 8 , iOS 9 is said to bring performance enhancements that may help the aging device run more smoothly again . On December 22 , 2015 , Apple faced a class action lawsuit for crippling the iPhone 4S with the iOS 9 update with slow and buggy software or to pay hundreds of dollars on a new iPhone .

On June 13 , 2016 , Apple announced that the iPhone 4S will not support iOS 10 due to its aging hardware .

== Hardware ==

The iPhone 4S uses the Apple A5 system @-@ on @-@ chip ( SoC ) that incorporates an Imagination Technologies PowerVR SGX543 graphics processing unit ( GPU ) . This GPU features pixel , vertex , and geometry shader hardware supporting OpenGL ES 2 @.@ 0 . The SGX543 is an improved version of the GPU used in the iPhone 4S 's predecessor , the iPhone 4 . The iPhone 4S uses a dual @-@ core model that is integrated with the Apple A5 SoC in the same way as the iPad 2 . Apple claims that the iPhone 4S has up to seven times faster graphics than the iPhone 4 ; this was corroborated by Epic Games president Mike Capps .

The iPhone 4S has 512 MB of DDR2 RAM . Maximum available storage size increased to 64 GB while the 32 GB and 16 GB model options were retained . The screen is the same as the prior generation iPhones ; 3 @.@ 5 inches ( 89 mm ) , 640 × 960 resolution ( Apple 's " retina " design ) . There was an improvement in interactive multimedia applications compared to its predecessor .

The iPhone 4S has an improved cellular ( GSM ) antenna design over the iPhone 4 . The new antenna is divided up into two pieces within the stainless steel band that wraps around the sides of

the phone . Therefore , if the iPhone 4S is gripped in such a way as to attenuate one piece of the cellular antenna , the radio will switch to the other piece that isn 't being gripped . The iPhone 4S can support a maximum theoretical download speed of up to 14 @. @ 4 Mbps with HSDPA + . As a result of an upgraded radio chip inside the phone , in addition to being a world phone , both GSM and CDMA customers can roam internationally on GSM networks . It also supports Bluetooth 4 @. @ 0 .

The camera on the iPhone 4S , also known as an iSight camera , can take 8 @- @ megapixel photos ( 3 @, @ 264 by 2 @, @ 448 pixels ) and record 1080p videos at up to 30 frames per second with upgraded quality ( 30 % better clarity , 26 % better white balance , color accuracy ) due to an additional lens , IR filter , a wider f / 2 @. @ 4 aperture , and Image signal processor ( built @- @ in A5 ) .

The built @- @ in gyroscope allows for some image stabilization for the camera while recording video , although it still has room for improvement , since state @- @ of @- @ the @- @ art image stabilization algorithms do not need to use a gyroscope , but use image processing . Other features of the camera are macro ( for close up pictures ) and faster capture including being able to take its first picture in 1 @. @ 1 seconds and the next half a second later .

The iPhone 4S features a 89 millimetres ( 3 @. @ 5 in ) 960 by 640 pixel multitouch Retina display . It has two volume buttons and a ring / silent switch on the left side . On the top left there is a 3 @. @ 5 mm headphone jack and a microphone that is used for both noise cancellation during calls and when in speakerphone / FaceTime ( video calling ) mode . The lock / power button is situated on the top right edge of the device . The right side of the device has a Micro @- @ SIM card slot . The bottom of the device features a speaker output on the right and a microphone input on the left with Apple 's proprietary 30 @- @ pin dock connector in the center . The iPhone 4S supports video out via AirPlay and various Apple A / V cables . Supported video formats include H.264 ( 1080p 30 frames per second maximum ) , MPEG @- @ 4 video , and motion JPEG ( M @- @ JPEG ) .

In addition to user inputs , the device also has several sensors that give the phone information about its orientation and external conditions . These include a three @- @ axis gyroscope , an accelerometer , a proximity sensor , and an ambient light sensor . The iPhone 4S is stated to have 200 hours standby time , 8 hours talk time on 3G , 14 hours talk time on 2G , 6 hours 3G browsing , and 9 hours Wi @- @ Fi browsing . Additionally , it can sustain up to 10 hours of video playback or 40 hours of audio playback .

== = Design == =

The iPhone 4S has a stainless steel , dual cellular antenna design , identical to iPhone 4 CDMA . Apple redesigned the antenna in the iPhone 4 CDMA after some original iPhone 4 users reported cellular signal attenuation problems as a result of holding the phone in certain positions . The improved cellular radio in the phone can switch between two antennas , depending on which is sending / receiving the best signal . These two antennas are incorporated into the distinctive stainless steel band that wraps around the sides of the iPhone 4S . The bands on the iPhone 4S are divided into two antennas : cellular and Global Positioning System GPS , with Bluetooth and Wi @- @ Fi reliant on an internal antenna .

The iPhone 4 and 4S were designed by Jonathan Ive . The ' 4' generation iPhones differ from earlier Apple designs ; the bulges of the back panel as well as the band between the front and back are gone and have been replaced with flattened surfaces . The redesign reflects the utilitarianism and uniformity of existing Apple products , such as the iPad and the iMac . The overall dimensions of the iPhone 4S are lower than that of the 3GS .

It is 115 millimetres ( 4 @. @ 5 in ) high , 59 millimetres ( 2 @. @ 3 in ) wide , and 9 @. @ 4 millimetres ( 0 @. @ 37 in ) deep , compared to the iPhone 3GS , which is 116 millimetres ( 4 @. @ 6 in ) high , 62 millimetres ( 2 @. @ 4 in ) wide , and 12 millimetres ( 0 @. @ 47 in ) deep ; making the iPhone 4 and 4S 21 @. @ 5 % thinner than the 3GS . The internal components are situated between two panels of aluminosilicate glass , described by Apple as being " chemically strengthened to be 20 times stiffer and 30 times harder than plastic , " theoretically allowing it to be more scratch resistant

and durable than the prior models .

= = Reception = =

= = = Critical reception = = =

Reception to the iPhone 4S was generally favorable . Reviewers noted Siri , the new camera , and processing speeds as significant advantages over the prior model . Tim Stevens of Engadget said that the " iPhone 4S does everything better than the iPhone 4 , but it simply doesn 't do anything substantially different . " Joshua Topolsky of The Verge stated that " if this were to be a car , it would be a Mercedes " and that Siri is " probably one of the most novel applications Apple has ever produced . " Most reviewers thought that Siri was the most important feature on the iPhone 4S . Brian Chen of Wired said that " the fifth @-@ generation iPhone 's superb camera and speedy dual @-@ core processor are classy additions . But Siri is the reason people should buy this phone . "

Retrevo surveyed more than 1 @, @ 300 U.S. consumers and reported that 71 percent of all smartphone owners were not disappointed by the new iPhone 4S but 47 percent or almost a half of current iPhone 4 owners were ; 12 percent were hoping for a bigger display , 21 percent wanted a refreshed design , and 29 percent desired 4G . Echoing technology pundits , Reuters suggested that the lack of a more radical departure from the iPhone 4 could open new market opportunities for rivals . Analyst C. K. Lu of Gartner believed that Apple no longer had the leading edge and that the 4S would only sell due to brand loyalty , as fans had been expecting an iPhone 5 with a thinner profile , edge @-@ to @-@ edge screen , and stronger features . These same fans had also wanted a cheaper , stripped @-@ down iPhone 4 .

Gaming on the iPhone 4S has been likened to the PlayStation Vita , that features the same SGX GPU only in a quad @-@ core configuration , and the Nintendo 3DS handheld game consoles . Further , the iPhone 4S ' ability to process 80 million polygons per second has been compared to the PlayStation 3 and the Xbox 360 home video game consoles that can process 275 million and 500 million polygons per second respectively .

Computer and Video Games 's ( CVG ) deputy editor Andy Robinson told TechRadar that the " 4S is certainly laying down some serious credibility for the iPhone as a core gaming device . Not only is it now pushing out games that simply eclipse the 3DS visually , but features like cloud saving and TV streaming support are really exciting for gamers . " The senior gaming analyst at Jon Peddie Research , Ted Pollak , believes the biggest improvement to gaming on the iPhone 4S is the voice control features , noting that " one of the features that Nintendogs players loved was the ability to talk to it . There 's no reason why a game like that couldn 't be done on the iPhone 4S , and much more sophisticated given the voice control shown . "

In 2012 , the iPhone 4S won T3 's " Work Gadget of the Year " award , beating RIM 's Blackberry Bold 9900 , rival Samsung 's Galaxy Note amongst others .

= = = Issues = = =

Since the introduction of the iPhone 4S , there have been several issues reported by users on internet forums that have been noted by media organizations such as CNN , Boy Genius Report , The Guardian and PC World .

No audio on outgoing calls .

Sometimes there is no speaker audio for services like web radio even though the speaker works fine when used as a telephone . This error may be due to a malfunctioning switch sensing the headphone plug and different handling of this information by different apps .

Yellow @-@ tinted screens ( primarily affecting white @-@ cased units ) . It turned out the previous models had a less accurately calibrated screen and thus displayed images with a bluish tint .

Battery problems . Apple has acknowledged the problem and have released iOS 5 @.@ 1 @.@ 1 to diagnose and address the issue . However , the update has failed to completely resolve the

underperforming battery issue . As of February 2012 , Apple was still investigating the battery drain issue .

Not understanding the accent of users from various countries while speaking to Siri .

Bluetooth connectivity and range sometimes poor , deficient , and / or defective . The sound quality on the other end is muffled and / or undiscernible , with reports indicating the iPhone is likely the problem as opposed to the Bluetooth headsets .

Wi-Fi overheating and toggle switch greyed out after updating the operating system to iOS 7 .

= = Commercial reception = = =

Unlike prior iPhone models , the number of sales of the iPhone 4 had not yet climaxed before the introduction of the 4S . Previous iPhone models were released during or after declining sales figures . In addition , iPhone 4 users had high marks for being satisfied with their phone . Upon the announcement of the iPhone 4S , shares of Samsung Electronics , HTC and Nokia gained on Wednesday after the 4S was announced , while Apple stock fell . However , later in the day Apple shares rebounded ending with a 1 % gain .

With the launch of the pre-order , AT & T said that the demand for the iPhone 4S was " extraordinary " . Over 200 ,000 pre-order orders were placed within 12 hours of release through AT & T. The German phone company Deutsche Telekom said they were " satisfied " with consumer interest . In addition , AT & T , Verizon , and Sprint sold out pre-order stock by October 8 , 2011 , and by October 9 there was a 1 - 2 week estimate on new pre-order orders to be filled . On October 20 , 2011 , AT & T surpassed one million iPhone 4S activations . On October 10 , Apple announced that over one million pre-order orders for the iPhone 4S had been received within the first 24 hours of it being on sale , beating the 600 ,000 device record set by the iPhone 4 . The 16-month wait between the iPhone 4 and 4S may have contributed to overwhelming sales as well .

On October 17 , 2011 , Apple had announced that four million units of the iPhone 4S were sold in the first three days of release , and 25 million iOS users had upgraded to the then latest version of iOS , iOS 5 , which was released upon the introduction of the phone . Phil Schiller , Apple 's senior vice president of Worldwide Product Marketing , stated that the " iPhone 4S is off to a great start with more than four million sold in its first weekend - the most ever for a phone and more than double the iPhone 4 launch during its first three days . " The used phone market saw unprecedented rates of trade-ins in the weeks leading up to the 4S announcement , and after it there was a drop in prices offered . Previous generation iPhones are recirculated through the markets through various methods and third-party buyers may purchase older generation iPhones . Apple also buys back previous generation iPhones under a special program . On April 24 , 2012 , AT & T announced that 7 .6 million iPhone units were activated in Q4 2011 , and 4 .3 million in Q1 2012 . In total , AT & T sold 5 .5 million smartphones in the first quarter of 2012 , out of which 78 % were iPhones .

= = Timeline of models = =