



# iPhone 4

# Antennagate

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## *Apple: iPhone 4's Antennagate*

The launch of the new iPhone 4 from Apple caused a huge stir all over the world, particularly in the United States in June 2010. The features improvement of the new smartphone went into the background when signal problems were detected. The simple answer that the company gave to their clients only increased the controversy. Finally, Apple had to apologize in public and compensate their customers.

### **Apple Inc.**

Apple Inc. is an American multinational corporation headquartered in Cupertino, California, that designs, develops, and sells consumer electronics, computer software and personal computers. The company was founded on April 1, 1976, by Steve Jobs, Steve Wozniak and Ronald Wayne to sell a personal computer kit called Apple I, a computer unassisted designed by Wozniak. Since then, Apple has suffered many changes and currently it is the world's second-largest information technology company by revenue after Samsung Electronics and the world's third-largest mobile phone maker after Samsung and Nokia<sup>1</sup>. Fortune magazine named Apple the most admired company in the United States in 2008, and in the world from 2008 to 2012.

Apple's marketing strategy is powerful and has made them the success story they are. They use unique marketing techniques as understanding and serving the customer better than anyone else, making sure every little thing serves always and everywhere. Apple is not limited to cover only the need of customers, they also are capable of creating demand with innovating products that does not exist on market. For example, iPod and iPad are common products now, but in the past this items revolutionized the technology market.

### **iPhone 4's Launch**

On June 7th, 2010, Steve Jobs, Apple's CEO, showed the fourth generation of iPhone at San Francisco's Moscone Center. The new phone is officially called, "iPhone 4".

It had "over 100 new features" the first of which is a new design with both a glass front and back and stainless steel edging. The new iPhone 4 was just 9.3mm thick, making it 24% thinner and 2 grams heavier than the iPhone 3GS.

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<sup>1</sup> Gartner, May 16, 2012.  
<http://www.gartner.com/newsroom/id/2017015>

The most important feature of the phone was the amazing 960×640 resolution display, which offered a 326-pixel-per-inch density “more than limit of the human retina,” according to Jobs.

The iPhone 4 was powered by Apple’s own A4 processor, which gave the new phone a speed over the 3GS. The A4 was so power-efficient that you got up to 10 hours of Wi-Fi web surfing or video playback on the phone. It had also improved the motion-control hardware, adding a 3-axis gyro.

The iPhone 4 had also been upgraded with a new camera system, including both a 5-megapixel digital camera on the back of the phone and a front-facing camera for video calls the “FaceTime,” and worked between any two iPhone 4’s. The main camera takes 720p HD video at 30fps and includes an LED flash.

The iPhone 4's antenna is external and is the stainless steel band that runs around the edge of the phone. This band is divided in two pieces, one for Wi-Fi, Bluetooth and GPS and the other for UMTS and GSM. Both pieces aren’t connected between them and their potentials are different, but when you hold the mobile these antennas are in contact (lower left corner) by your skin and this changes the impedance, the measurement are different and it modifies the level of signal bars.<sup>2</sup>

The iPhone 4 was available for North America, Germany, France, UK and Japan. The US price started \$199 for 16GB and \$299 for 32GB. The rest of the world had to wait until September.

Apple’s fans had waited this phone for a long time and the success was granted. On June 24th, Steve Jobs said "We apologize to those customers who were turned away because we did not have enough supply".

### **User’s Complaints**

Since the first day iPhone 4 was launched, some consumers reported problems because the signal reception was very low. They noticed that signal strength was decreased when touching the lower left edge of the phone, bridging one of the two locations which separate the two antennas, giving rise to dropped calls in some areas with lower signal reception.

Nowadays, there is much information on the net since anyone can write on it, but in this occasion the rumor about the lack of coverage of the iPhone 4 was true because there were a lot of users complaining from many different places. Thus it was born the controversial issue called "Antennagate".

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<sup>2</sup> Brian Klug & Anand Lal Shimpi “Apple's iPhone 4: Thoroughly Reviewed”  
<http://www.anandtech.com/show/3794/the-iphone-4-review/2>

Several videos appeared on “you tube” showed these complaints to the entire world. People tested the phone, recorded the bar levels in different situations and published the results.

Even Consumer Reports, which advised consumers not to buy the phone with the apparent design flaw, described the smartphone as the best on the market based on its features alone.<sup>3</sup>

### **Apple Response**

Given the increasing complaints from users, the day after the launch of the iPhone 4, Apple reported that the problem was the way the smartphone was held by saying “avoid gripping it in the lower left corner in a way that covers both sides of the black strip in the metal band”. Similarly, the CEO’s solution was “just avoid holding it in that way” and told clients to buy a case to shield the antenna.

Despite of the repeated grumbles, on July 28<sup>th</sup>, Apple was seeing that he had in his hands the “most successful product launch in Apple’s history”, selling 1.7 million iPhones 4 to date. However, Apple was still receiving complaints even through social networks, so that days later the announcement of the record, on July 2, issued a letter explaining how surprised they were about the size of the grievances, in which said reception problems were perceived not real, and that a software update would fix the problem. Essentially, Apple said the formula used to calculate signal strength was flawed, so the number of reception-indicating “bars” on its phones did not correspond with actual phone reception without actually clarifying the accountability to the problem until 14 days.

To control the situation, Apple decided to give a conference where Jobs talked about the iPhone 4 and its alleged problem with the antenna. In it, recognize that a reduction in coverage occurs in one or more bars. They also tried to convince users that it is a problem that can happen with any smartphone like Droid, Nokia or Rim phones. Mr. Jobs at the conference considered that the press and the media had exaggerated the extent of it, but nevertheless, had decided giving a free case to all iPhone 4 users, until September 30 of that year, 2010, as a new solution to the problem. Therefore, those customers who were not satisfied could return the iPhone 4 within 30 days for full refund.

Apple revealed on August 9, that Mark Papermaster, senior vice president of devices hardware engineering and head of its iPod and iPhone division for 2 years, had departed the company and regarding that, Mr. Papermaster had lost the confidence of Steve Jobs

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<sup>3</sup> John D. Sutter “Got an iPhone 4? You may need duct tape”  
<http://edition.cnn.com/2010/TECH/mobile/07/13/iphone.4.duct.tape/>

months ago and not solely as a result of the iPhone 4 "antennagate." He also didn't appear to have the type of creative thinking expected at Apple and wasn't used to Apple's corporate culture.

The solution of the free case program for iPhone 4 satisfied many clients, but especially to shareholders, because the \$175 million set aside for the iPhone 4 Case Program could actually be accretive, and add between 25 cents and 45 cents to Apple's 2011 earnings per share. Furthermore, they explained to AppleInsider that "The reason for potential accretion is because in its accounting, AAPL already takes a reserve for warranties on every product it sells including iPhones and the elimination of additional reserves is additive,"<sup>4</sup>. The benefit of shareholders was announced at Apple's website on September 13.

### **Mass Media Reaction**

The reaction of the media on the issue of the new iPhone 4 occurred when the first complaints appeared from users. BBC News, The New York Times and CNN were the most famous media involved in this matter.

On June 24<sup>th</sup>, the first media that published user's complaints was the BBC News with the headline "Users report fault on iPhone 4". The news explained the grumbles of the people and the exact similarity between all of them, regarding the lack of mobile coverage depending on how you hold it. Besides, the news highlighted that Steve Jobs had said "really cool engineering" in respect of the iPhone 4 antenna's description.

Given the low responsiveness of the company, the BBC did not take more than 24 hours to publish a second report titled "Apple issues advice to avoid iPhone flaw" to explain the pointless answers that they had given.

Thereafter, the rest of the media start to retransmit the whole problem of phone coverage. The New York Times, which began with more objective news about it, eventually ends up including scientific comments, such as the news of July 2, which includes the review of James E. Katz, a center director mobile communications studies at Rutgers University, questioned why the problem was not discovered before. Also, this newspaper published a full page ad of perfect signal bars on its Motorola's droid "X" mocking about the antennagate.

In addition, they reported that Mr. Papermaster was pushed out after a number of hardware-related problems and he was viewed internally at Apple as "the guy responsible for the antenna", according to sources who spoke with The Wall Street Journal. How much the iPhone 4 antenna controversy played a part in his exit was said to be "unclear".

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<sup>4</sup> Neil Hughes "End of Apple's iPhone 4 Case Program seen as benefit to shareholders"  
[http://appleinsider.com/articles/10/09/13/end\\_of\\_apples\\_iphone\\_4\\_case\\_program\\_seen\\_as\\_benefit\\_to\\_shareholders](http://appleinsider.com/articles/10/09/13/end_of_apples_iphone_4_case_program_seen_as_benefit_to_shareholders)

However, the news channel that mocked more about Apple was CNN. This not only includes reviews of important people related to the world of telephony but also conveys the news with humor like "Got an iPhone 4? You may need duct tape" or "Does a free case fix all the iPhone 4's problems?". Besides, they posted a program of "Consumer's Report", always from the same point of view "The Consumer Reports still does not recommend the iPhone 4" and especially the perspective of Mike Gikas, senior of Consumer Reports, like "the duct tape may not be pretty, but may works". Even during the first two months, the CNN News also published news discrediting Apple through other competitor's reviews.

### Competitor's Chance

There were two companies, Motorola and Samsung, who saw this issue as an opportunity to sell their product because they were the only ones that could compete with Apple's new phone.

It is true that these two companies did not begin with aggressive advertising until Steve Jobs started to compare the problem of his new iPhone 4 with the Motorola Droid X and the Samsung Galaxy S. They answered by publishing in various media their cellphone signal differences in order to make fun of the iPhone. Even the Samsung Company offers the Galaxy S totally free for those users frustrated with Apple, advertised by CNN News.<sup>5</sup>

### Court Case

On June 29<sup>th</sup>, 2010, 5 days after the official release of the new iPhone, Law firm Kershaw, Cutter & Ratinoff, a Sacramento-based law firm, filed a class action lawsuit against Apple and AT&T, an American multinational telecommunications corporation, headquartered at Whitacre Tower in downtown Dallas, Texas, in the Northern District of California arguing that more than 1,200 iPhone 4 users have contacted the law firm to inform reception problems.

The only solutions that had been offered by Apple to date had been to sell rubber cases which Apple manufactures and which retail for \$29 each, and to advise users that they are holding the phone incorrectly.

Besides all the fuss formed by the failure of the iPhone antenna, it was rumored that Apple knew this antenna issue before the iPhone was released, and that this fact was discussed between engineers and designers of the company.

While all these news were spreading through the network, class actions lawsuits were adding one after the other reaching to the point that after 18 demands were brought to court, they were joined in a single lawsuit to argue that Apple was "misrepresenting and

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<sup>5</sup> Duncan Geere "Samsung offers free phones to frustrated iPhone users"  
<http://edition.cnn.com/2010/TECH/mobile/07/24/samsung.replacing.iphones/index.html>

concealing material information in the marketing, advertising, sale, and servicing of its iPhone 4 -- particularly as it relates to the quality of the mobile phone antenna and reception and related software."<sup>6</sup>

### Final Resolution

On February 22<sup>th</sup>, 2012, Apple settled an agreement with its plaintiffs, promising to pay \$15 or alternatively provide a free case for those U.S. citizens who had bought one of their smartphones. This agreement, a year and a half later, put in evidence the lack of effectiveness of Apple's case, commonly known as "Antennagate".

"We believe that the Apple iPhone 4 settlement is fair, adequate, and reasonable," Ira Rothken, co-lead counsel representing the class, said to CNET. "We believe that it allows members of the class to choose, and they can get \$15 of cash or a bumper, so we believe that type of choice is proportional to the circumstances."<sup>7</sup>

On April 17<sup>th</sup>, 2013, almost three years later, the first checks were issued to the class action members, being void after July 16th, getting as a final result that Apple had to pay \$ 53 million, of which \$16 million went to the legal counsel for the plaintiffs.<sup>8</sup>

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<sup>6</sup> Don Reisinger. "iPhone 4 Antennagate site goes live, lets you collect \$15"  
[http://news.cnet.com/8301-13506\\_3-57406331-17/iphone-4-antennagate-site-goes-live-lets-you-collect-\\$15/](http://news.cnet.com/8301-13506_3-57406331-17/iphone-4-antennagate-site-goes-live-lets-you-collect-$15/)

<sup>7</sup> Josh Lowensohn. "Settlement reached in iPhone 4 antennagate suit"  
[http://news.cnet.com/8301-27076\\_3-57380685-248/settlement-reached-in-iphone-4-antennagate-suit/](http://news.cnet.com/8301-27076_3-57380685-248/settlement-reached-in-iphone-4-antennagate-suit/)

<sup>8</sup> Nick Bilton. "The Check Is in the Mail, From Apple "  
<http://nyti.ms/1dnwxYI>