Original iPhone
vs.
iPhone 4G
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Abstract

This article notes the evolution of the iPhone 4G from its original predecessor. The iPhone is a smartphone with internet and multimedia capabilities manufactured by Apple Inc. As basic major features, it also functions as the following: camera, text messenger, iPod, email and web browsers. The original version simply consists of a 9 cm LCD touchscreen with input/output plug-ins and three buttons: sleep/off, volume up/down, and home. Network coverage is provided by AT&T through a sim-card which can be inserted in a hidden compartment on top. It has set a new standard and created a new breed for smartphones products.

Introduction

iPhones were marketed for the working professional; however, its consumers vary from teens to gadget-loving adults because its multiple uses makes it very versatile. From texting, to pictures, videos, games, and browsing, this all-in-one innovation has conveniently replaced the burden of carrying multiple devices all together.

With so many utilities already packed into such tiny space, the newer iPhone improves these existing amenities while adding new creative features. Some new additions include: better display, video conferencing, faster speed, and multitasking. Network expansion is also an issue currently in controversy.

New Features/Capabilities

iPhone 4 introduces newer and better features than ever before. Its best edition by far is the ability to video conference called “FaceTime”. This allows calls like never seen before. Apple’s second favorite improvement is its high resolution Retina display that allows incredible zooming (makes fine prints visible). Next comes the most wanted concern for multitasking. People asked and Apple delivered, allowing multiple programs
to run simultaneously such as writing an email while having tunes play in the background. Finally, iPhone 4 gives the power to shoot, edit, and share video recordings in HD.

![FaceTime, Retina Display, Multitasking, HD Video Recording](image)

Figure 1 – New Features [1]

### Old/New Model Hardware Comparison [2]

<table>
<thead>
<tr>
<th>Model</th>
<th>iPhone</th>
<th>iPhone 3G</th>
<th>iPhone 3GS</th>
<th>iPhone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image</strong></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
<td><img src="image" alt="Image" /></td>
</tr>
<tr>
<td><strong>Initial operating system</strong></td>
<td><strong>iPhone OS 1.0</strong></td>
<td><strong>iPhone OS 2.0</strong></td>
<td><strong>iPhone OS 3.0</strong></td>
<td><strong>iOS 4.0</strong></td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>3.5 in (89 mm), 3:2 aspect ratio, scratch-resistant(^1) glossy glass covered screen, 262,144-color <strong>LCD</strong>, 480 × 320 px (<strong>HVGA</strong>) at 163 ppi</td>
<td>In addition to previous, features a fingerprint-resistant <strong>oleophobic</strong> coating(^2)</td>
<td><img src="image" alt="Image" /></td>
<td>3.5 in (89 mm), 3:2 aspect ratio, <strong>aluminosilicate</strong> glass covered <strong>IPS LCD</strong> screen, 960 × 640 px at 326 ppi, 800:1 contrast ratio</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>4, 8 and 16 GB</td>
<td>8 and 16 GB</td>
<td>8, 16 and 32 GB</td>
<td>16 and 32 GB</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>Graphics</strong></td>
<td>PowerVR MBX Lite 3D GPU⁴</td>
<td>PowerVR SGX555 GPU⁴</td>
<td>Apple A4 Clock speed unknown</td>
<td></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>620 MHz (underclocked to 412 MHz) Samsung 32-bit RISC ARM 1176JZ(F)-S v1.0⁵</td>
<td>833 MHz (underclocked to 600 MHz) ARM Cortex-A8⁵⁷ Samsung S5PC100⁴⁹⁸⁹</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>128 MB DRAM⁹</td>
<td>256 MB DRAM⁴⁷</td>
<td>512 MB DRAM⁴⁰</td>
<td></td>
</tr>
<tr>
<td><strong>Connectivity</strong></td>
<td>Wi-Fi (802.11b/g), USB 2.0/Dock connector, Quad bandGSM/GPRS/EDGE (850, 900, 1800, 1900 MHz) Bluetooth 2.0 + EDR Cambridge Bluecore⁴¹</td>
<td>In addition to previous: Assisted GPS, Tri-band UMTS/HSDPA (850, 1900, 2100 MHz)⁵⁹ Includes earphones with mic</td>
<td>In addition to previous: 7.2 Mbit/s HSDPA, Voice Control, Digital compass, Nike+, Bluetooth 2.1 + EDR Broadcom 4325⁴³ Includes earphones with remote and mic</td>
<td>In addition to previous: Quad-band UMTS/HSDPA (850, 900, 1900, 2100 MHz)⁵⁹, 5.76 Mbit/s HSUPA, Wi-Fi (802.11n: 2.4 GHz only), 3-axis gyroscope, Dual-mic noise suppression, microSIM</td>
</tr>
<tr>
<td><strong>Camera</strong></td>
<td>2.0 MP with geotagging</td>
<td>3.0 MP with video (VGA at 30 fps), geotagging, tap to focus, and focus, white balance, Macro focus &amp; exposure</td>
<td>Rear 5.0 MP backside illuminated CMOS image sensor with video (720p HD at 30 fps), LED flash. Front VGA-quality photos and video at up to 30 fps.</td>
<td></td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td>Aluminum and plastic</td>
<td>Zirconia/yttrium hybrid ceramic material with an additional silicone coating⁵⁹⁶⁰; black or white (white not available for 8 GB models)</td>
<td>Aluminosilicate glass and stainless steel; white or black</td>
<td></td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>Built-in rechargeable lithium-ion polymer battery⁴⁷⁴⁸⁴⁹</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.7 V 1400 mA·h⁵¹</td>
<td>3.7 V 1150 mA·h⁴⁸</td>
<td>3.7 V 1219 mA·h⁵⁰</td>
<td>Unknown</td>
</tr>
<tr>
<td><strong>Rated battery</strong></td>
<td>audio: 24</td>
<td>audio: 30 video: 10</td>
<td>audio: 40 video: 10</td>
<td></td>
</tr>
</tbody>
</table>
| life (hours) | video: 7 | Talk over 3G: 5  
Browsing over 3G: 5  
Browsing over Wi-Fi: 9  
Standby: 300 | Talk over 3G: 7  
Browsing over 3G: 6  
Browsing over Wi-Fi: 10  
Standby: 300[21] |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>115 × 61 × 11.6 mm (4.5 × 2.4 × 0.46 in)</td>
<td>115.5 × 62.1 × 12.3 mm (4.5 × 2.4 × 0.48 in)</td>
<td>115.2 × 58.6 × 9.3 mm (4.5 × 2.31 × 0.37 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>135 g (4.8 oz)</td>
<td>133 g (4.7 oz)</td>
<td>135 g (4.8 oz)</td>
</tr>
</tbody>
</table>
| Released | 4 and 8 GB: June 29, 2007  
Black 8 GB: June 24, 2010 | June 24, 2010 |
| Discontinued | 4 GB: September 5, 2007  
8 and 16 GB: July 11, 2008 | 16 GB: June 8, 2009  
Black 8 GB: June 4, 2010 | 16 and 32 GB: June 24, 2010  
Black 8 GB: In production | In production |

**Conclusion**

iPhone is currently the leading, most popular smartphone on the market that is constantly setting the bar to new heights. Although it offers an unbelievable amount of user-friendly functions, competitors such as Android are not far behind with other innovative features. But by always keeping customers needs and wants in mind, Apple Inc. is definite heading in the right direction in developing and providing consumers with tomorrow’s technology today.

**References (or Works Cited)**


Accessed: 06/22/2010
Annotated Bibliography

German, Kent and Donald Bell, (2007), “Apple iPhone – 8GB”, CNET Reviews

This article breaks down the all features of the original iPhone that I could use for comparison. It also include a Pros and Cons reviews, why and why not to buy one. Critic ratings of the device are very useful in determining the change in improvement towards the successors.

Pogue, David. (2007),”Apple iPhone Review”, Gizmodo

The website show user reviews as well as explanations of what they like and why along with what they do not like or need and why. Such information is valued by Apple to make the necessary changes they need to make to satisfy the demands of consumers with version to follow.

Apple Inc., (2010), “iPhone”, Apple iPhone 4

Apple.com is the official site of the new iPhone 4. This site will list all the updated information needed to create the most accurate article straight from Apple. Photos of the new devices are also provided to show contrast between the new and old versions.


Displays table of variations throughout each model. It strongly supports the accuracy of this article as it concurs with the other resources state above and below. From the operating system used to the dimensions and specifics, it is all laid out in great detail.


This is the most informative support yet. It includes the background and history of the iPhone along with every detail of its functions. The following information on the iPhone can be found here: History, Hardware, Software, Restrictions, Licensing, and all of its models.