



iPhone is a registered trademark of Apple. All Rights Reserved.

# INSIDE THE iPHONE PATENT PORTFOLIO

DATA OFFERS GLIMPSE OF BATTERY-FREE FUTURE, INSIGHT INTO  
SMARTPHONE 'PATENT WARS'

SEPTEMBER 2012



THOMSON REUTERS™

**Laird  
Exhibit 1036**

AMONG APPLE'S 1,298 MOBILE PATENTS, SOME INDIVIDUAL TECHNOLOGIES STAND OUT AS KEY INDICATORS OF WHAT THE FUTURE OF SMARTPHONE DESIGNS MAY HOLD.

# OVERVIEW

Imagine never having to scan an airport or hotel lounge for an outlet to recharge your smartphone again. Apple® already has, and they've filed the patent for the technology that may make it possible.

Since introducing the iPhone in 2007, Apple has sold over 250 million units<sup>1</sup> to become the leading smartphone manufacturer in the world. Along the way, the company has also filed nearly 1,300 patents and has entered into 479 lawsuits to protect the intellectual property (IP) behind the technology.

With the highly-anticipated fifth generation of the iPhone slated to be introduced in the fall of 2012 and the closely-watched patent wars between Apple and its smartphone rivals making

headlines daily, what can the iPhone patent portfolio tell us about the future of Apple's crown jewel?

To find out, the IP Solutions business of Thomson Reuters tracked patent activity across the Apple portfolio from January 2000 to August 2012. The analysis spotlights the hotspots of iPhone R&D and calls out some breakthrough new technologies – such as iPhone fuel cell technology – that will set the bar for future smartphone innovation. It also charts the frequency of iPhone-related patent litigation from January 2008 through August 2012, suggesting that Apple is becoming much more aggressive in the enforcement of its inventions, having already filed nearly as many patent suits in the first half of 2012 as it did in all of 2010 and 2011 combined.

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<sup>1</sup> TechCrunch, "Apple Has Shipped 250M iPhones, Made \$150B In Revenues in the Past 5 Years," June 27, 2012 <http://techcrunch.com/2012/06/27/strategy-analytics-apple-has-shipped-250m-iphones-made-150b-in-revenues-in-the-past-5-years/>

# METHODOLOGY

Data for this IP Market Report were aggregated using Thomson Reuters Derwent World Patents Index® (DWPI<sup>SM</sup>) to identify global patent activity for Apple, Inc. in the Derwent Manual Code category for portable, hand-held mobile radio telephones. Additionally, Thomson Reuters IP Monitor was used to identify active IP litigation

for the company. Researchers analyzed the total number of unique inventions issued in published patent applications and granted patents between January 2000 and August 2012. Active IP litigation was analyzed between January 2008 and June 2012.

# FINDINGS AND OBSERVATIONS

## Top Technology Areas

Since 2000, Apple has filed 1,298 patents addressing hand-held mobile radio telephone technologies. The vast majority of these have been filed following the 2007 launch of the iPhone. Prior to 2007, Apple filed just 17 patents in this category.

The following table categorizes Apple's inventions into core technology areas of focus. Innovations related to "smartphone general" leads the way, followed by "camera" and "user interface."

## CORE TECHNOLOGY AREAS OF APPLE PATENTS

FIGURE 1

TECHNOLOGY AREA	NUMBER OF INVENTIONS (PATENTS)
iPhone, Smartphone General	416
Camera	279
User Interface	232
Image Display/Screen	149
Battery/Power Control	88
Antenna	75
Calendar	31
Contact Management	15
Voice Control	5

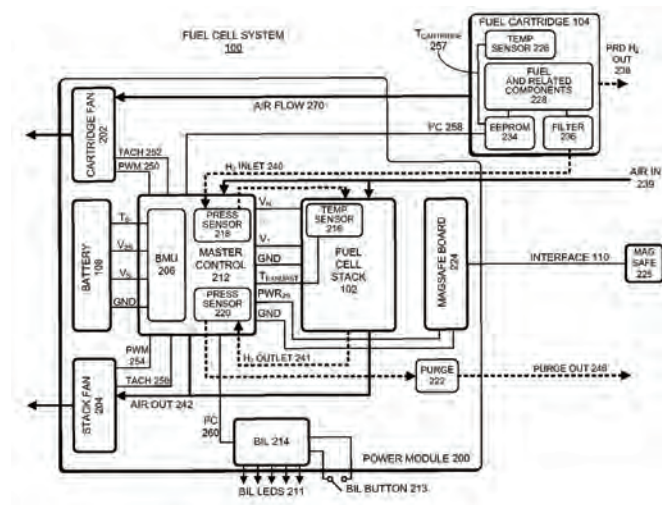
Source: Derwent World Patents Index®

## Noteworthy Patents

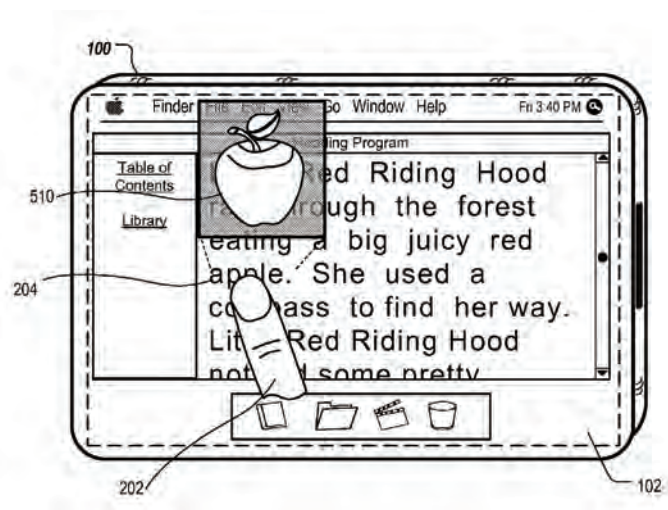
Among Apple's 1,298 mobile-related patents, some individual technologies stand out as key indicators of what the future of smartphone design may hold. Among these, researchers

noted two specific technologies. Both patents have been filed with the U.S. Patent and Trademark Office and are currently listed in "pending" status:

- Fuel Cell System to Power a Portable Computing Device:** Patent # US20110311895, filed by Apple in August 2010, which addresses a new battery technology that will allow a portable device to stay charged for days or even weeks without interruption (see drawing).



- Assist Features for Content Display Device:** Patent # US20110167350, filed by Apple in January 2010, which addresses education by allowing users to interact with text via a touch-sensitive display in order to learn more about the text (see drawing).



## Litigation

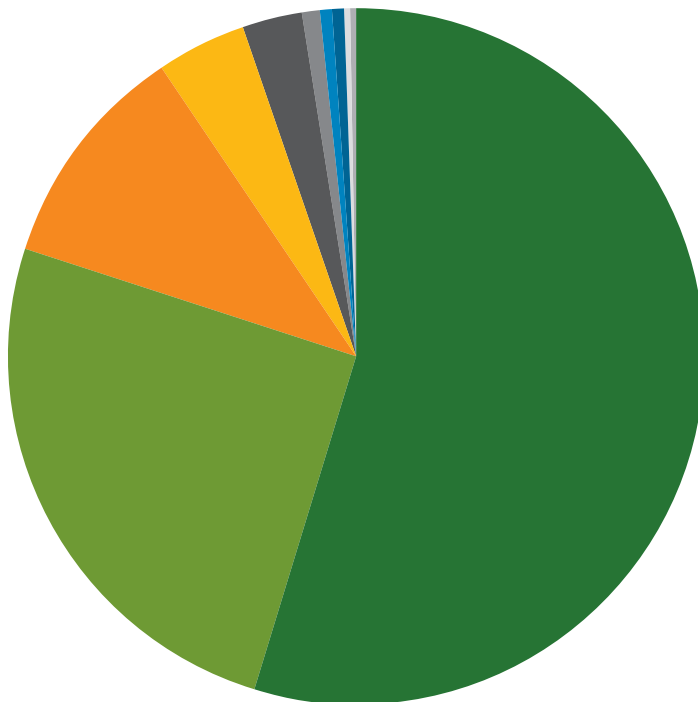
The smartphone “patent wars,” which have involved a labyrinth of lawsuits and counter-claims between top device and software companies including Apple, Samsung®, Nokia® and Google®, reached a fever pitch in July 2012. The catalyst was a case between Google and Apple that was thrown out of the Seventh U.S. Court of Appeals. The judge in the case, Richard Posner, a University of Chicago professor, author of 40 books and the most frequently cited living legal scholar in the world, dismissed the case with prejudice, calling the claims “silly” and describing a U.S. patent system in a state of “chaos” and in need of reform.

Despite the widespread criticism of runaway smartphone industry patent litigation, the trend is emblematic of how many companies are using IP as a strategic weapon in the capitalist system. Apple’s victory over Samsung in August 2012, for the latter’s infringement of technology that controls screen responses to finger swipes and the overall look and feel of the iPhone, is testament to just this. The battle between these two rivals (and at times partners) culminated with the jury awarding Apple the largest verdict ever in a patent infringement case - \$1.05 billion.

For some insight into the current state of Apple’s IP litigation, the following charts depict all active IP litigation between 2008 and 2012 year-to-date by legal role (defendant, counter-claimant, plaintiff, etc.):

### APPLE’S ACTIVE IP LITIGATION (2008 - JULY, 2012)

FIGURE 2



Legal Roles	Occurrences	%
Defendant	263	54.9%
Counter-Claimant	120	25.1%
Plaintiff	51	10.6%
Respondent	20	4.2%
Counter-Defendant	14	2.9%
Movant	3	0.6%
Counter-Plaintiff	2	0.4%
Appellant	1	0.2%
Appellee	1	0.2%
Other Legal Roles	4	0.8%

Source: Thomson Reuters IP Monitor

Figure 3 depicts the rapidly increasing pace of Apple IP litigation, with over 150 IP lawsuits in 2012.

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FIGURE 3

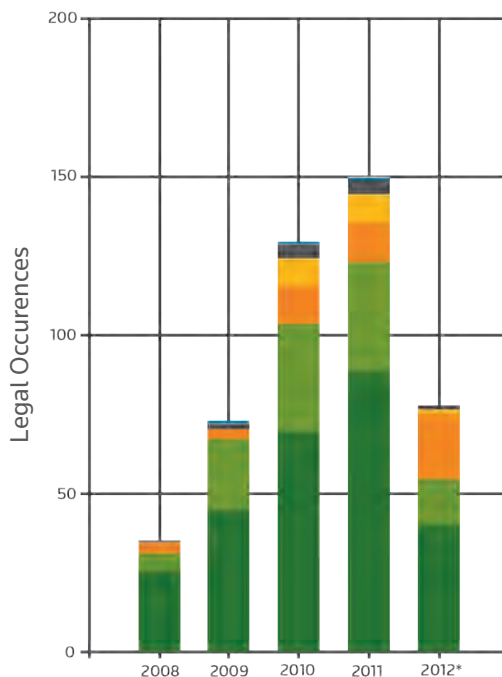
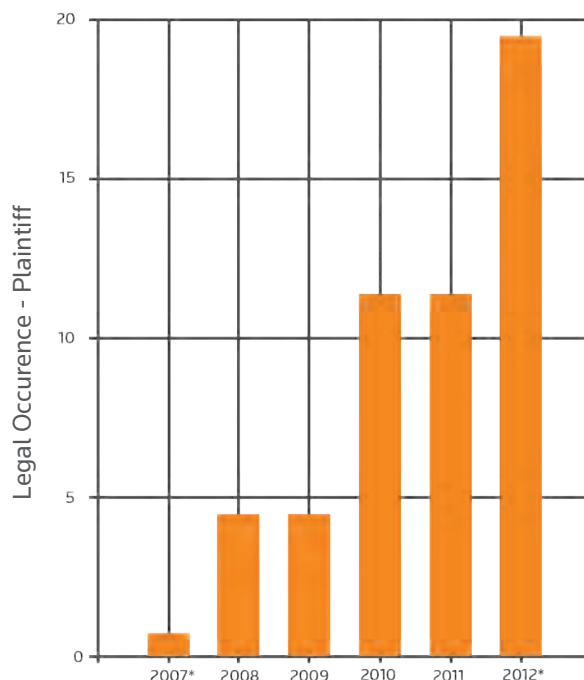


Figure 4 depicts Apple's increased aggressiveness in defending its IP by tracking the company's initiation of patent infringement suits between 2007 and June of 2012. As of June 2012, Apple had already filed nearly as many patent suits as it did in 2010 and 2011 combined.

FIGURE 4



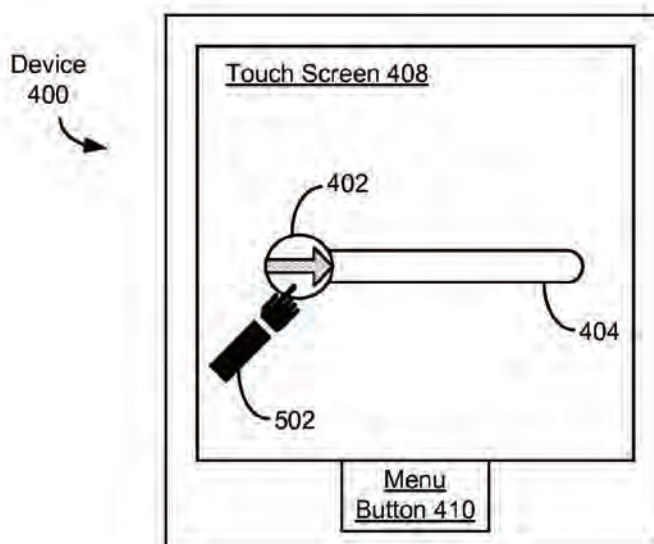
\*Data for partial year only



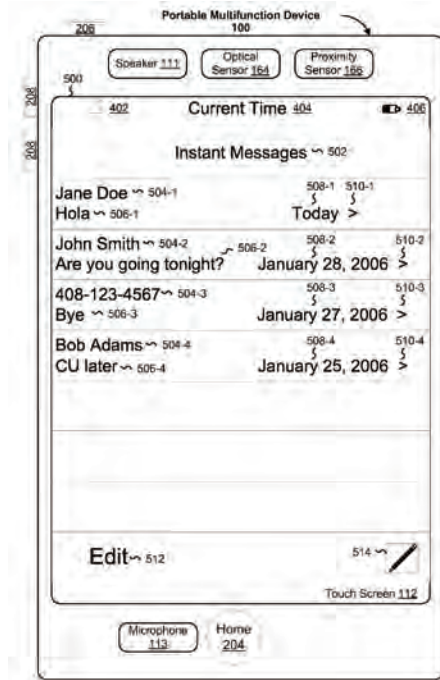
REUTERS / Paulo Whitaker

Specific to Apple's ongoing "patent war" with Samsung, a deep-dive analysis of current litigation in which Apple is the plaintiff suing Samsung reveals the following to be some of the most disputed technologies between the two firms:

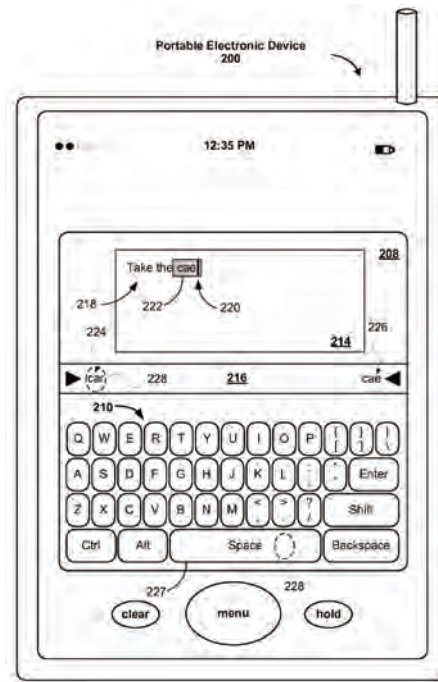
- **Swipe to Unlock:** Patent # US8046721, filed by Apple in June 2009, which allows a device to be unlocked by performing gestures on a touch-sensitive display (see drawing):



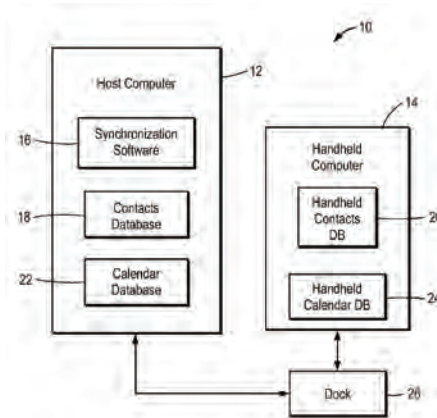
- Missed Telephone Call Management for a Portable Multifunction Device:** Patent # US8014760, filed by Apple in June 2007, which describes a computer-implemented method for use in conjunction with a portable electronic device to display missed telephone calls (see drawing):



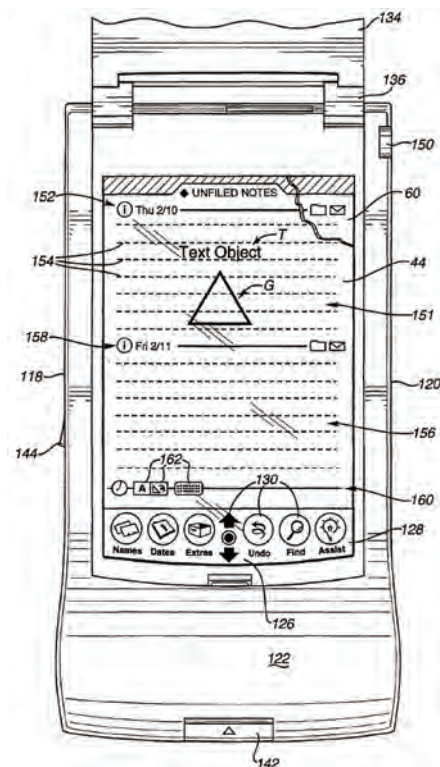
- Method and Interface for Providing Word Recommendations:** Patent # US8074172B2, filed by Apple in January 2007, which describes a graphical user interface for providing word recommendations (see drawing):



- Asynchronous Data Synchronization Among Devices:** Patent # US7761414B2, filed by Apple in January 2007, which describes systems, methods and computer readable media for synchronization tasks and non-synchronization tasks being executed simultaneously (see drawing):



- Graphical User Interface Using Historical Lists:** Patent # US5666502A, filed by Apple in August 2005, which describes an input technique for a computer that provides the user with an historical list of potential choices for the data input described (see drawing):



# CONCLUSION

Though it is impossible to know exactly how Apple's IP will manifest itself in consumer products for the end-user, our detailed review of Apple's patent portfolio reveals two facts about the future of smartphone design:

1. Handset manufacturers like Apple will continue to push the bounds of innovation to bring us faster, smarter, longer-lasting tools
2. This ultra-competitive environment will continue to fuel IP-related litigation for the foreseeable future

Smartphones are huge business for their makers. In the second quarter of 2012 alone, Apple sold 35.1 million iPhones<sup>2</sup>. Research firm Strategy Analytics calculates that the company has generated \$150 billion in cumulative revenues from the iPhone. It is safe to say that the IP that makes such revenue possible is going to be protected by its owner and challenged by rivals.

As this marriage between must-have consumer technology and constant product innovation continues to grow in an ultra competitive marketplace, we expect IP to continue its evolution beyond solely intellectual capital protection, and into a more of a strategic tool in the ever-increasing quest for market leadership.

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<sup>2</sup> Los Angeles Times, "What to Expect from Apple's Third-Quarter Earnings," July 24, 2012  
<http://www.latimes.com/business/technology/la-fi-tn-apple-earnings-preview-20120723,0,3572315.story>

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