

A CRITICAL ANALYSIS OF APPLE-SAMSUNG PATENT DISPUTES

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Samsung and Apple stand as prominent entities within the technology industry, collectively commanding over 40% of the global market revenue for smartphones. As of December 2023, Apple, valued at an astronomical \$3 trillion¹, holds the distinction of being the world's largest company by market capitalization. Meanwhile, Samsung, with a substantial market capitalization exceeding \$374 billion, stands as a formidable global powerhouse, contributing significantly to South Korea's GDP.² In the dynamic landscape of a free market dominated by these conglomerates, inevitable conflicts arise as they vie for a larger share. Indeed, such disputes materialized as Apple and Samsung became entangled in legal battles over their respective intellectual property rights, pursuing substantial financial compensations and injunctions, each seeking to protect their market interests. The intricate interplay of environmental pressures within the technology sector played a pivotal role in shaping the outcomes and complexities of these smartphone patent disputes. The constant evolution of smartphone designs and components intensifies the frequency of litigation over infringement issues. In this context, the patent disputes between Apple and Samsung are one of the leading cases.

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In February 2012, Apple initiated a legal dispute against Samsung in the United States, asserting the violation of five Apple patents across an array of Samsung products, including the Galaxy Nexus, Galaxy Note, and Galaxy S III. In response, Samsung filed a counterclaim, contending that Apple infringed upon two of its patents across various Apple devices. The magnitude of the case extended beyond monetary damages, potentially influencing similar lawsuits against Android handset manufacturers grappling with comparable patent issues.

In a second lawsuit in May 2012, Apple alleged that Samsung's Galaxy S line infringed upon the "look and feel" of the iPhone and iPad, prompting a counterclaim from Samsung accusing Apple of infringing on wireless networking technology patents. At the core of this legal

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¹ Derek Saul, 'Apple Hits 3 Trillion Market Value and Could Soar Another 800 Billion' Forbes (New York, 30 June 2023) | <https://www.forbes.com/sites/dereksaul/2023/06/30/apple-hits-3-trillion-market-value-and-could-soar-another-800-billion/?sh=68490a5552b1> | Accessed 19 January 2024.

² Companies Market Cap. (2024, January). Samsung (005930.KS) - Market capitalization. Retrieved January 19, 2024, from <https://companiesmarketcap.com/samsung/marketcap/>.

confrontation lay a significant focus on the patents safeguarding various components of their smartphones, which is north of 10000 patents in each device, particularly emphasizing design patents. The ensuing legal battle spanned over USA, South Korea, Germany, Japan, France, Italy, Netherlands, Australia and Britain in which the intricate layers of the technology industry and the implications of intellectual property protection, in a fiercely competitive market where innovation and legal safeguards intersect, were unravelled.

THE SUITS

In May 2012, Apple took legal action against Samsung, marking another chapter in the ongoing legal battles between Apple and Android device manufacturers. Notably, Samsung is a critical component supplier for Apple, contributing components such as DRAM and SSDs for MacBook Pros, as well as processors like the A4 and A5 for various Apple devices.³ Despite the business relationship, Apple went on to accuse Samsung of engaging in a blatant and unauthorized replication of Apple's innovative technology, user interfaces, and distinctive product and packaging designs. The lawsuit raised eyebrows not only due to the boldness of Apple suing one of its key suppliers but also because it underscored Apple's unwavering and unapologetic commitment to protecting its intellectual property.

This legal move indicated Apple's willingness to pursue legal action to safeguard its innovative technologies. While it might be assumed that Apple possibly sought negotiations with Samsung before resorting to legal measures, the filed complaint suggests that amicable discussions may have failed. In the realm of intellectual property disputes, a filed complaint often signifies the breakdown of less adversarial negotiations.

The core of Apple's complaint went beyond a mere assertion of intellectual property infringement and provided an interesting insight into the dynamics of the case. The complaint, filed on the 15th and made public later, not only addressed the alleged infringement of Apple's IP but also delved into the structure of Samsung's TouchWiz and its tendency to incorporate design elements from Apple's products. This lawsuit extended beyond the Android operating system's core and emphasized the significance of TouchWiz and Samsung's design choices.

³ Geeksmodo Staff. (2023, October 26). "Why Apple Uses Samsung Parts, Explained." Geeksmodo. Retrieved January 19, 2024, from <https://geeksmodo.com/why-apple-uses-samsung-parts-explained> (accessed 19th January 2024).

Examining the background section of Apple's complaint reveals several interesting details. Apple reported selling over 60 million iPod touches as of March 2011, a specific number that had not been disclosed previously. Additionally, Apple disclosed that it has sold 108 million iPhones and 19 million iPads. The company had invested significantly in advertising these devices, with an expenditure exceeding \$2 billion during fiscal years 2007 to 2010. This background set the stage for Apple's assertion of protectable intellectual property, including utility patents, design patents, trademarks for various iOS system app icons, and trade dress registrations covering the iPhone, iPod touch, iPad, and their respective packaging.

Apple identified a range of Samsung devices, including the Captivate, Continuum, Vibrant, Galaxy S 4G, Epic 4G, Indulge, Mesmerize, Showcase, Fascinate, Nexus S, Gem, Transform, Intercept, and Acclaim phones, along with the Galaxy Tab, as allegedly infringing its intellectual property. Notably, Apple expressed particular dissatisfaction with TouchWiz'd Galaxy S devices, claiming they so closely resemble Apple products that they could be mistaken for genuine Apple devices.

Let us summary wise look into the claims that Apple made against Samsung:

i. First Claim

The first claim in Apple's legal action against Samsung revolved around trade dress infringement under 15 U.S.C. § 1125⁴ Trade dress is a distinct category within intellectual property, akin to a trademark for design elements that evoke consumer recognition. It functions to prevent consumer deception in the marketplace by clearly indicating the origin of a product or service. Apple contended that certain design elements associated with its products, both in terms of hardware and Samsung is infringing upon software as well as packaging. These elements include a rectangular product shape with uniformly rounded corners, a screen surface dominating the front, specific black borders around the screen, a metallic surround framing the top surface, a display of colourful square icons with rounded corners, and more. In terms of packaging, Apple pointed to the rectangular box, minimal metallic silver lettering, a prominent front-view picture of the product on the box, and a specific box structure. The central question for the court is whether Samsung's use of these elements is likely to confuse consumers about the product's origin.

⁴ US Code 15 § 1125 [Title 15, Section 1125 of the United States Code] available at <https://www.law.cornell.edu/uscode/text/15/1125> (accessed 19 January 2024).

Samsung defended by arguing that its products and packaging are not confusingly similar or providing evidence that consumers are not actually confused.

ii. Second Claim: Federal Trade Dress Infringement under 15 U.S.C. § 1114

The second claim in this legal battle focused on federal trade dress infringement, governed by 15 U.S.C. § 1114⁵. This claim is characterized by its simplicity as it revolves around three specific iPhone trade dress elements that Apple has already registered with the US Patent and Trademark Office (USPTO).

iii. Third Claim: Federal Trademark Infringement under 15 U.S.C. § 1114

The third claim delved into federal trademark infringement, also under 15 U.S.C. § 1114.⁶ It underscores the strength of Apple's registered trademarks on various iOS system icons, drawing attention to alleged similarities with Samsung's TouchWiz icons.

iv. Fourth Claim: Common Law Trademark Infringement

Acting as a catch-all, the fourth claim consolidated federal trademark claims and reinforced the case on the pending iTunes icon. The claim highlighted the nuances of common law trademark infringement and its role in strengthening Apple's position in the ongoing suit.

v. Fifth Claim: Unfair Business Practices under the California Business and Professions Code

The fifth claim, operating at the state level, mirrored trade dress and trademark assertions under the California Business and Professions Code. It provided an alternative legal avenue, and focused on the intricacies of unfair business practices, shedding light on the state-level dynamics of the lawsuit.

vi. Sixth Claim: Unjust Enrichment

The sixth claim of unjust enrichment underscored Apple's argument that Samsung unfairly profited from copying its work, irrespective of whether infringement is ultimately established.

⁵ US Code 15 § 1114 [Title 15, Section 1114 of the United States Code] available at <https://www.law.cornell.edu/uscode/text/15/1114>; <https://www.law.cornell.edu/uscode/text/15/1114> (accessed 19 January 2024).

⁶ *Ibid.*

vii. *Android-Related Claims: Seventh to Thirteenth Claims*

Expanding the scope beyond Samsung-specific claims, Apple went into new claims against Android, constituting a substantial portion of the lawsuit. Claims seven to thirteen involved diverse patents addressing issues such as display control, list scrolling, instant messaging interfaces, touchscreen input, and hardware design.

viii. *Design Patents: Claims Fourteen to Sixteen*

Delving into design patent claims fourteen to sixteen specifically targeted the infringement of Apple's design patents by Samsung-specific hardware and software, collectively known as the Galaxy / TouchWiz claims.

THE TRIALS

The legal entanglement between two tech giants, Apple Inc. and Samsung Electronics Co., Ltd., unfolded in various countries but we shall focus on two trials in the U.S. courts and examine the intricate intellectual property conflicts within the technology sector. Both the trails revolved around multiple utility and design patents, reflecting the escalating competition and rivalry inherent in the contemporary tech landscape.

A. The First Trial:

i. *Initiation of Legal Proceedings*

Commencing with the first among the two separate lawsuits, Apple accused Samsung of infringing on three utility patents (United States Patent Nos. 7,469,381, 7,844,915, and 7,864,163) and four design patents (United States Patent Nos. D504,889, D593,087, D618,677, and D604,305). Conversely, Samsung retaliated by asserting infringement on its patents, including United States Patent Nos. 7,675,941, 7,447,516, 7,698,711, 7,577,460, and 7,456,893. A pivotal element of contention was the 2005 design patent, Design Patent 504,889, illustrating the ornamental design of an electronic device, particularly a thin rectangular cuboid with rounded corners.⁷

⁷ Apple Inc. v Samsung Electronics Co. Ltd. et al [2012] USCA No. 5:2011cv01846 (16 November 2012), Document 239768 (Opinion or Order Filing 2142) (Justia Dockets)
<https://dockets.justia.com/docket/california/candce/5:2011cv01846/239768> (accessed 19 January 2024).

ii. The Trial Proceedings

The U.S. trial, scheduled for July 30, 2012, saw the participation of key figures from both companies, including Phil Schiller and Scott Forstall, who provided testimony. The proceedings delved into the intricate details of the utility and design patents, scrutinizing the alleged infringements and counter-claims. The jury, comprising lay individuals, was tasked with navigating complex technical and legal nuances associated with intellectual property rights.⁸

iii. Verdict and Implications

On August 24, 2012, the jury rendered a verdict overwhelmingly favouring Apple. Samsung was found guilty of wilfully infringing on Apple's design and utility patents, notably those pertaining to the iPhone's "Bounce-Back Effect," "On-screen Navigation," and "Tap to Zoom." Design patents covering features like the "home button, rounded corners, and tapered edges" were also deemed infringed. The jury awarded Apple a substantial \$1.049 billion in damages, while Samsung received no damages in its counter-suit.⁹

iv. Post-Trial Developments

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Subsequent developments added complexity to the legal saga. The U.S. Patent and Trademark Office's tentative invalidation of Apple's bounce-back patent on October 23, 2012, cast a shadow over the trial's outcome. Apple's pursuit of an injunction against Samsung's products faced initial denial by Judge Lucy H. Koh, citing limited merit in Apple's claims of irreparable harm. Apple's subsequent appeal led to a reversed decision on May 14, 2012, resulting in a preliminary injunction against the Galaxy Nexus.^{10 11}

However, post-trial, the Nexus was found not to infringe Apple's patents, prompting Samsung to appeal and successfully lift the preliminary injunction on October 11, 2012. A new hearing

⁸ Bishop, Bryan, 'Apple v. Samsung' (3 August 2012) [Web Archive <https://web.archive.org/web/20120729022822/http://cand.uscourts.gov/lhk/applevsamsung>] (accessed 19 January 2024).

⁹ CNET, 'Jury Decides Samsung Infringed on Apple Patents' (4 August 2012) <https://www.reuters.com/article/idUSDEE87Q037/> (accessed 19 January 2024).

¹⁰ McDowell, Rob, 'Samsung patent infringement: Apple owes \$930m' The Guardian (14 November 2013) <https://www.theguardian.com/technology/2013/nov/14/samsung-patent-infringement-apple-owes> (accessed 19 January 2024).

¹¹ Apple Inc v Samsung Electronics Co Ltd [2012] USCA No 5:2011cv01846 (16 November 2012), Document 221 (Opinion or Order Filing 2142) (CourtListener) <https://www.courtlistener.com/docket/4178994/221/apple-inc-v-samsung-electronics-co-ltd/> (accessed 19 January 2024)

in March 2014 addressed Apple's bid for a permanent injunction, which was ultimately denied by Judge Koh.¹²

v. *Controversies and Debates*

The aftermath of the trial sparked debates and controversies, raising questions about the validity of lay juries in the U.S. patent system. The jury's rapid decision, considering over 700 questions and awarding more than \$1 billion in damages, prompted concerns about the jurors' understanding of the intricate legal and technical aspects. An interview with the jury foreman, Velvin Hogan, an electrical engineer and patent holder, added another layer of controversy. Hogan's statements about guiding jurors based on his patent experience fuelled debates about the transparency and fairness of the jury's decision-making process.¹³

vi. *Damage-Only Retrial and Supreme Court Intervention*

A damage-only retrial in November 2013 saw Samsung acknowledging some elements of infringement, leading to a reduced damages award of \$290 million. The legal journey reached the U.S. Supreme Court, which, on December 6, 2016, decided 8–0 to reverse the initial trial's decision and remand the case. The Supreme Court sought a clarification of the legal standard defining "article of manufacture," emphasizing that it might not be the entire smartphone but could extend to components such as the case and screen.¹⁴

vii. *A Second Retrial and Resolution*

On October 22, 2017, District Court Judge Lucy Koh ordered a second retrial of damages based on the Supreme Court's decision. The retrial concluded on May 24, 2018, with Apple being awarded \$539 million, including \$399 million for damages related to Samsung's products infringing on the patents.¹⁵

¹² Ammons, Jack, 'Setback for Apple: US Judge Denies Samsung's Motion to Dismiss' Foss Patents (12 March 2014) <http://www.fosspatents.com/2014/03/setback-for-apple-us-judge-denies.html> (accessed 19 January 2024).

¹³ Slate Staff, 'Juror Misconduct? Samsung Asks Judge to Throw Out Apple Patent Verdict' Slate (20 September 2012) <https://slate.com/technology/2012/09/juror-misconduct-samsung-asks-judge-to-throw-out-apple-patent-verdict.html> (accessed 19 January 2024).

¹⁴ Scotusblog Staff. (2016, December 12). Opinion Analysis: Justices Tread Narrow Path in Rejecting \$400 Million Award for Samsung's Infringement of Apple's Cellphone Design Patents <http://www.scotusblog.com/2016/12/opinion-analysis-justices-tread-narrow-path-in-rejecting-400-million-award-for-samsungs-infringement-of-apples-cellphone-design-patents/#more-249662> (accessed 19th January 2024).

¹⁵ Seung, Lee, 'Apple and Samsung Head Back to Court to Re-Decide Design Infringement Damages' [Silicon Beat] (23 October 2017) Web Archive

B. The Second Trial (not to be confused with the aforementioned second retrial):¹⁶

i. *Legal Proceedings and Trial Dynamics:*

Scheduled for March 2014, while originally filed in 2012, the trial unfolded under the oversight of Judge Koh, who characterized it as "one action in a worldwide constellation of litigation between the two companies." The jury selection occurred on March 31, 2014, with the trial commencing in early April. On May 2, 2014, the jury delivered a verdict instructing Samsung to pay \$119.6 million to Apple for patent violations related to smartphone technology.¹⁷

Despite the apparent victory, the compensatory amount was perceived by some as a disproportionate outcome, constituting less than 10% of the sought-after \$2 billion by Apple. Brian Love, an assistant professor at the Santa Clara University Law School, highlighted that the awarded sum did not significantly surpass Apple's litigation expenses.

ii. *Unforeseen Developments and Legal Intricacies:*

In an unexpected turn, Apple's legal team identified a technical mistake made by the jury. This revelation prompted Judge Koh to recall the jurors on May 5, 2014, to rectify an issue that carried potential financial implications worth several hundred thousand dollars. The jury's verdict held both Samsung and Apple accountable, with Samsung awarded \$158,400 after the jury found Apple liable for infringing one of Samsung's patents.¹⁸

iii. *Appeals and Circuit Court Rulings:*

Expressing dissatisfaction with the jury verdict, Samsung appealed to the United States Court of Appeals for the Federal Circuit in 2015. In February 2016, a three-judge panel nullified the jury's decision, asserting that one of the patents cited by Apple was not infringed by Samsung, and two others were deemed invalid based on prior art.

<https://web.archive.org/web/20171023214737/http://www.siliconbeat.com/2017/10/23/apple-samsung-head-back-court-re-decide-design-infringement-damages/> (accessed 19 January 2024).

¹⁶ McDowell, Rob, 'Apple sues Samsung for \$2bn as tech rivals head back to court' The Guardian (31 March 2014) <https://www.theguardian.com/technology/2014/mar/31/apple-sues-samsung-for-2bn?INTCMP=ILCNETTXT3487> (accessed 19 January 2024).

¹⁷ Mullin, Joe, 'Samsung ordered to pay Apple \$120m for patent violation' The Guardian (3 May 2014) <https://www.theguardian.com/technology/2014/may/03/samsung-ordered-to-pay-apple-120m-for-patent-violation> (accessed 19 January 2024).

¹⁸ *Ibid.*

Undeterred by this setback, Apple sought an *en banc*¹⁹ hearing from the full Federal Circuit, resulting in a ruling in its favor by an 8-3 decision in October 2016. The Circuit reinstated the \$120 million award, with dissenting judges emphasizing the panel's dismissal of crucial evidence supporting Apple's patent validity and Samsung's infringement.²⁰

iv. Supreme Court Denial and Resolution:

In a final attempt to overturn the decision, Samsung appealed to the Supreme Court, but in November 2017, the Court declined to hear the appeal, upholding the Federal Circuit's ruling in favor of Apple. In mid-2018, the prolonged legal battle over the patent dispute reached its resolution, culminating in Apple being awarded \$539 million.²¹

v. Conclusion:

The intricacies and legal nuances surrounding the second U.S. trial between Apple and Samsung were once again the point of focus when discussing the protracted nature and complexities inherent in intellectual property disputes within the dynamic landscape of the technology sector.

SETTLEMENT PROCEEDINGS

The long-running patent dispute between Apple and Samsung finally came to an end, with both parties informing Judge Koh of a settlement reached on undisclosed terms. The case centred around allegations that Samsung infringed upon various design and utility patents related to the iPhone, including tap-to-zoom functionality and the home screen app grid. Before further litigation, the companies reached an amicable settlement, the terms of which remain confidential.²² Apple's official statement emphasizes the case's significance beyond mere financial gain, reiterating its stance that Samsung copied the iPhone's design and that design

¹⁹ In law, an *en banc* hearing is a session in which a case is heard before all the judges of a court (before the entire bench) rather than by one judge or a smaller panel of judges. It's typically used for unusually complex or important cases or when the court believes there is a particularly significant issue at stake.

²⁰ Mullin, Joe, 'Apple got its verdict back—\$120M against Samsung' Ars Technica (7 October 2016) <https://arstechnica.com/tech-policy/2016/10/apple-got-its-verdict-back-120m-against-samsung/> (accessed 19 January 2024).

²¹ Mullin, Joe, 'Supreme Court won't hear Apple v. Samsung, round two' Ars Technica (6 November 2017) <https://arstechnica.com/tech-policy/2017/11/supreme-court-wont-hear-apple-v-samsung-round-two/> (accessed 19th January 2024)

²² 'Apple and Samsung settle seven-year-long patent fight over copying the iPhone' The Verge (27 June 2018) <https://www.theverge.com/2018/6/27/17510908/apple-samsung-settle-patent-battle-over-copying-iphone/> (accessed 19th January 2024)

protection remains vital. Samsung declined to comment. The reasons behind the settlement at this specific juncture are unclear. While financial concerns were downplayed by Apple, both companies may have finally grown weary of the extensive legal proceedings and their symbolic weight. Notably, this marks the conclusion of two major patent battles between the tech giants, with another one settled in 2020 involving slide-to-unlock and other patent infringements.²³

CONCLUSION

In conclusion, these suits started the big fight between Apple and Samsung over who owns what in the tech world even though ironically the latter is the largest supplier of components of the devices manufactured by the former. We found that Apple managed to show itself as a cool and inventive company, while Samsung, even though it might have had to pay Apple, gained some important stuff too. Samsung became known as a strong competitor in the Android world, and they changed how they think about patents - now caring more about having really good ones. Even when Samsung had to pay a lot of money in some claims, they still felt like they won because more people knew them for more than just big TVs. What's interesting is that Samsung didn't just stay upset after these fights. They learned from it. They made a special team to deal with patents and got better at understanding how things work in the United States legal system. This means they're now more ready if they ever get into legal trouble again. We also looked at how complicated the jury instructions and verdict forms were in these cases. Imagine having to read 100 pages of legal stuff and answer 700 questions. It's not easy for anyone, not even the experts. And the people making these big decisions weren't lawyers or technical persons – they were everyday folks like electricians, social workers, housewives, and unemployed people. This makes us wonder if it's fair to ask regular people to handle such complex legal stuff. In the end, we can safely assume that these legal battles between big tech companies are not just about money and who's right or wrong. They change how companies act, how people see them, and even how they think about things like patents. It's like a big puzzle where each piece - whether it's a legal win or loss - shapes the whole picture of the tech world.

²³ Blake Brittain, Reuters. (2023, October 12). Caltech ends high-stakes US patent fight with Apple and Broadcom <<https://www.reuters.com/legal/caltech-ends-high-stakes-us-patent-fight-with-apple-broadcom-2023-10-12/>> (accessed 19th January 2024).