



Design patents as a tool for business strategy: lessons from *Apple v Samsung*

The long-running face-off between Apple and Samsung over the design elements of their phone products offers a number of key takeaways for rights holders

Design patents have been a part of US patent law since 1842. Yet for much of this time, they have occupied a side role relative to utility patents – both in their number and in the respect (or lack thereof) accorded to them. However, in the past decade, design patents have received significantly more attention, as savvy businesses look to them to protect valuable innovations. Given that most consumer product companies spend vast resources on industrial design in order to create a particular look for a product or line of products, it is only appropriate that they also invest in protecting those looks – at least for products with a longer shelf life. Indeed, design patents can be instrumental to establishing and protecting the market share of a product’s appearance.

Design patent infringement

Not all aspects of a patented design need to be present in an accused product for there to be an infringement.

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The test for determining whether an infringement has occurred requires the courts to consider the accused product and the patented design and determine whether the two look substantially similar. More specifically, infringement occurs if an ordinary consumer would mistake the accused product for the patented design in the context of the relevant prior art. Under this rule, an ‘ordinary consumer’ is an individual who is aware of the relevant prior art, rather than a wholly uninformed person. Although design patents do not protect the functional aspects of a design, a design patent claim may involve both functional and non-functional elements. Provided that the primary design or appearance is not dictated by its functional aspects, the design claim is valid even if certain claimed elements have functional purposes. Indeed, the courts may exclude the functional aspects of a design patent from consideration during an infringement analysis.

PICTURE: ANNA
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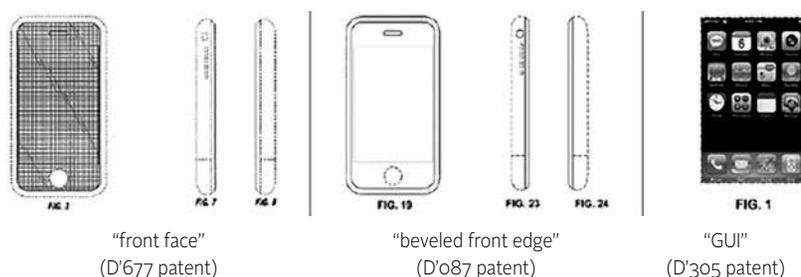
TABLE 1: Timeline of *Apple v Samsung* lawsuits

April 2011	Apple sued Samsung in the US District Court for the Northern District of California, claiming that several of Samsung's Android phones and tablets infringed Apple's intellectual property; namely, three utility patents (Patents 7,469,381, 7,844,915 and 7,864,163), four design patents (Patents D504889, D593087, D618677 and D604305) and various trademarks and trade dress. In response, Samsung filed a countersuit, claiming that Apple infringed nine of its utility patents.
July 2012	A jury trial commenced in the US District Court for the Northern District of California.
August 2012	The jury returned a verdict in favour of Apple, finding that Samsung had wilfully infringed Apple's design and utility patents, and diluted its trade dress in relation to the iPhone. The jury awarded Apple \$1,049 million in damages and Samsung zero damages in its countersuit.
September 2012	Samsung moved for judgment as a matter of law or a new trial. It argued that the jury's verdict was unsupported by evidence or testimony because the judge had imposed limits on testimony time and the number of witnesses – thereby preventing Samsung from receiving a fair trial – and was unreasonable.
March 2013	Judge Koh ordered a new trial to recalculate some of the damages in the case, striking \$450.5 million off the original judgment against Samsung. Apple requested \$380 million in additional damages. Samsung held that it owed Apple \$52 million only. Both parties disagreed on the amount of royalties, Apple's lost profits and Samsung's profits.
November 2013	The jury awarded a new figure of \$290 million in additional damages to Apple, which Samsung appealed.
December 2014	During a hearing at the US Court of Appeals for the Federal Circuit, Samsung noted that the USPTO had released preliminary findings of invalidity against various Apple patents relevant to the case, and sought a retrial at the district court.
May 2015	The Federal Circuit affirmed the district court's denial of Samsung's motion for judgment as a matter of law on the invalidity of the utility patents, as well as the damages awarded for utility patent infringement. The Federal Circuit also affirmed the district court's denial of Samsung's motions for a new trial on these issues, but remanded for immediate entry of final judgment on all damages awards not based on Apple's trade dress claims and vacated the jury's verdicts on the unregistered and registered trade dress claims.
December 2015	Samsung petitioned the US Supreme Court, asking it to review the way that design patent law for damages had been applied in the ongoing litigation with Apple.
December 2016	The US Supreme Court decided (8-0) to reverse the first-instance decision and returned the case to the Federal Circuit to determine the appropriate legal standard to define the 'article of manufacture' in regard to the disputed design patent.
October 2017	Koh ordered a second retrial of damages based on the limitations imposed by the Supreme Court decision.
May 2018	The jury trial for damages concluded, awarding Apple \$539 million, which included \$399 million for damages caused by the sale of Samsung products that infringed Apple's patents, but did not rely on a specific definition of the 'article of manufacture' and provided no allocation of the damages relative to the infringement counts.
June 2018	Apple and Samsung settled for an undisclosed amount.

In addition, special damages provisions apply under 35 USC §289, which authorises a penalty of the infringer's total profits.

Over the past seven years, design patents have taken centre stage in a series of *Apple v Samsung* lawsuits – a compressed timeline for which is set out in Table 1.

In the initial suit filed in 2011, Apple claimed that Samsung had infringed three design patents related to the “front face”, “beveled front edge” and “graphical user interface” (GUI) of its iPhone products (see Figure 1).

FIGURE 1: Apple design patents

Samsung argued that these design patents were invalid due to their functional elements, such as the rectangular form and rounded corners. The district court disagreed and held Samsung liable for infringement.

The victory was significant for Apple. For the damages calculations, both the district court and the Federal Circuit found that 35 USC §289 explicitly authorises the award of total profits from the article of manufacture (in this case, the Samsung phones) bearing the patented design, rather than an apportionment of damages based on only the infringing aspects of the device (ie, the external features, rather than internal hardware or software) (*Apple Inc v Samsung Elecs Co*, 786 F 3d 983, 986 (Fed Cir, 18 May 2015)). In so doing, the Federal Circuit interpreted Samsung's apportionment of damages argument as improperly imposing an apportionment requirement on Apple and rejected it based on *Nike, Inc v Wal-Mart Stores, Inc* (138 F 3d 1437, 1441 (Fed Cir 1998)). The Federal Circuit confirmed the district court's understanding that it is the “overall ornamental appearance” of the patented design that must be considered in an infringement analysis.

Samsung then filed a petition with the US Supreme Court asking it to review the apportionment-related

argument. The court reversed the decision on damages, but refused to determine the proper basis or amount. Instead, it returned the case to the district court to determine an appropriate legal standard to define the ‘article of manufacture’ on the grounds that this could be, for example, simply the case and screen, rather than the whole phone. The court explained that because profits from the entire product (eg, the Samsung phone) are usually greater than profits from a component of the product (eg, the case and screen), arriving at a damages award under §289 should involve the following steps:

- identify the article of manufacture to which the infringed design has been applied; and
- calculate the infringer’s total profit made on that article of manufacture.

The district court in the second retrial applied a four-factor test provided by the US solicitor general to determine the article of manufacture for the purposes of damages calculations under 35 USC §289. The four factors are:

- the scope of the design claimed in the plaintiff’s patent, including the drawing and written description;
- the relative prominence of the design in the product as a whole;
- whether the design is conceptually distinct from the product as a whole; and
- the physical relationship between the patented design and the rest of the product, including whether the design:
 - pertains to a component that a user or seller can physically separate from the product as a whole; or
 - is embodied in a component that is manufactured separately from the rest of the product, or if the component can be sold separately.

Apple’s design patents covered the home screen user interface and the front-facing exterior of the device, but did not cover the back of the phone. The jury – apparently but not explicitly applying the four-factor test – concluded that the relevant article of manufacture was an undefined portion of the entire phone and awarded only a portion of the total profits made from Samsung phones.

Four key takeaways

In view of the law of damages and infringement that can be gleaned from *Apple v Samsung*, what should brand owners do to protect their products from lookalike competitors? Design patents can provide valuable protection for the appearance of a product, even if the scope of that protection is limited by what a court may determine to be the claimed article of manufacture. Rights holders should keep the following points in mind when drafting and filing design applications, as well as managing design patent portfolios, in order to protect a product design efficiently and effectively.

File design patents

Brand owners should consider the value of incorporating design patents into their IP portfolio. For a strong IP portfolio, companies should not overlook design patents if they sell products with a specific appearance and distinct aesthetic features. Design patent protection may

FIGURE 2: Patent Do821268



FIGURE 3: Patent Do820731



FIGURE 4: Patent Do822973



FIGURE 5: Patent Do540531



extend well beyond the traditional end-consumer product markets often envisioned (eg, smartphones, sunglasses, athletic footwear or automotive design) to specialised technologies that result from significant investments in industrial design (eg, medical devices, manufacturing equipment and industrial furniture). Before 2007, the most US design patent applications filed by Apple in a single calendar year was 38. However, in 2007 it filed 124 design patent applications – triple the number of filings in 2006. In contrast, Samsung – which at the time offered many more products than Apple – typically secured only one design patent for each product. It may not be feasible to obtain design patents for all product variants. However, for a commercially valuable product design, multiple design patents can provide a valuable means of recovery

in litigation involving similar looking products. Apple's strategy of filing multiple design patents for the iPhone and Apple tablets enabled the company to protect its product designs and bring infringement claims against any products that may have tried to capitalise on its look by adopting similar proportions and device contours.

Apply appropriate claim scope

Although there is no clear set of rules for determining the relevant article of manufacture in multi-component designs after *Apple v Samsung*, design applications should be drafted with foresight about the scope of the intended product's design. While it may seem strategic to obtain the broadest possible claims for design patents, doing so may limit the patented design to a narrow sub-component of the article of manufacture and restrict the total amount of damages that the patent owner can obtain. The final analysis in *Apple v Samsung* relied on a visual approach to determine whether the overall appearance (ie, each view of the Apple designs and the corresponding view of Samsung's phones) was substantially similar in the eyes of an ordinary consumer. Accordingly, when less subject matter is claimed in a design application, the ordinary consumer may find less commonality between the patented design and the infringing product. Therefore, the traditional approach of claiming less may not always be the best strategy. On the other hand, drafting design applications with a subject matter that encompasses all aspects of the article of manufacture may be too narrow for practical enforcement.

For example, filing an application with a photograph of the product (see Figure 2) is extremely narrow and could present more design-around options for a competitor to distinguish from the overall ornamental appearance, while still retaining a similar look that may evoke the so-called 'cool factor' of the patented product and avoid infringement. In contrast, if less subject matter is claimed by submitting an image without solid colours or shaded surfaces, and which strategically uses dashed lines to show unclaimed environments and borders, the overall ornamental design is captured more broadly (see Figure 3). This would help a jury to analyse infringement by considering each view of the patented design in comparison to an accused product, which need not be an exact copy.

As such, less may cover more. The image of a shoe in Patent D0822973 (see Figure 4) claims narrow subject matter encompassing all aspects of the article of manufacture (including colour, proportion, contours and surfaces), which are much narrower than the shoe design in Patent D0540531 (see Figure 5).

The 20 August 2018 Federal Circuit decision in *In re Maatita* (2017-2037) held that a single 2D image of the tread pattern of a shoe sole was sufficient to distinguish the patented design, despite objections from the examiner and the Patent Trial and Appeal Board, and the fact that the design could take multiple, visually distinct forms in a 3D shoe.

Use varied claiming approaches

Apple v Samsung focused on the difficult question of "how close is too close" in the eyes of an ordinary

consumer when it comes to design patent infringement. Apple's progressive filing techniques (eg, using dotted and dashed lines, and multiple applications of varying scope, colouring and surface treatment) proved to be effective in the company's overall design patent drafting strategy. This strategy helped Apple to obtain broad claim coverage and strong protection for its designs. Therefore, when drafting a design application, rights holders should consider filing multiple applications involving multiple embodiments to reduce the likelihood of a restriction requirement and to add breadth and variability to the scope of the design.



It may not be feasible to obtain design patents for all product variants. However, for a commercially valuable product design, multiple design patents can provide a valuable means of recovery in litigation

Moreover, for multi-component designs (eg, vehicles, appliances and electronic products), the use of disclaiming strategies and indeterminate boundaries between multiple applications may provide significant breadth while still covering the entire article of manufacture for the purpose of any damages assessment. Such claiming strategies can provide a patent owner with varying scope to strongly enforce the claimed design.

In a perfect world not limited by legal department budgets, rights holders would be able to use all of these techniques – filing a series of design patent applications (including narrow photographic image claims) all the way up to multiple applications that use dashed lines to disclaim all but certain key design features. However, the practical limits of time and resources require strategic planning that is geared to capture the novel design elements that define the look of the corresponding product(s), which can be coordinated with the industrial designers and marketing staff in a few applications. This should include pre-planning for compliance with foreign filing requirements in relevant jurisdictions that often have limits on what must be included in drawings.

Understand the applicable tests

Although US district courts have been struggling to define an 'article of manufacture' in design patent damage analyses, many courts have applied the 'article of manufacture' test put forward by the US solicitor general. Applicants should take steps to understand and consider these factors when drafting design patent applications. Care should also be exercised during drafting and prosecution with regard to whether and how the article of manufacture is characterised, in order to avoid hampering future litigation enforcement by the prosecution history's effect on arguments.

FIGURE 6: Apple icons (top row) and Samsung icons (bottom row)



Trade dress infringement

Under 15 USC §1125, Apple (in *Apple Inc v Samsung Elecs Co*, 786 F 3d 983, 990 (Fed Cir, 18 May 2015)) claimed that Samsung had infringed the following unregistered trade dress elements:

- a rectangular product with four evenly rounded corners;
- a flat, clear surface covering the front of the product;
- a display screen under the clear surface;
- substantial black borders above and below the display screen and narrower black borders on either side of the screen; and
- when the device is on:
 - a row of small dots on the display screen;
 - a matrix of colourful square icons with evenly rounded corners on the display screen; and
 - an unchanging bottom dock of colourful square icons with evenly rounded corners set off from the display’s other icons.

Apple also claimed that Samsung had infringed its registered trademark for 16 icons on the iPhone home screen (see Figure 6) framed by the iPhone’s rounded, rectangular shape with silver edges and a background.

Samsung argued that Apple’s purported trade dress was functional and that, because trademark law gives the trademark owner a “perpetual monopoly”, a design that is functional cannot serve as protectable trade dress. The court noted that “a product feature is functional if it is essential to the use or purpose of the article or if it affects the cost or quality of the article”. The standard is even higher when the owner claims trade dress protection over the configuration of a product, rather than the product packaging or other forms of trade dress.

Because the case came to the Federal Circuit on appeal from a district court sitting in the Ninth Circuit, the Federal Circuit applied the Ninth Circuit’s *Disc Golf* test for determining whether a design is functional. Under the test, the court considered whether:

- the design yielded a utilitarian advantage;
- alternative designs were available;
- advertising touted the utilitarian advantages of the design; and
- the particular design resulted from a comparatively simple or inexpensive method of manufacture.

In addition, the court noted that the legal effect of not having the trade dress registered on the Federal Trademark Register was such that:

- the evidentiary burden of proof was on Apple to prove that the trade dress, taken as a whole, was not functional; and
- there was no presumption of trademark validity.

Apple had the burden of proving the validity of its unregistered trade dress, which required the company to show that the disputed product features served “no purpose other than identification”.

The Court of Appeals also applied the *Disc Golf* factors test and found extensive evidence to support Samsung’s claim that the disputed trade dress was functional. Although Apple had an evidentiary presumption of validity for the 16 registered icons on the iPhone home screen, the court again considered the *Disc Golf* factors and found that Samsung had met its burden of overcoming this presumption and proving that the trade dress was functional and the registration invalid. Therefore, the court held that the trade dress for the iPhone icons was functional, noting that Apple’s own expert from the trial testified that the icon-based interface promoted usability.

Conclusion

Both design patents and trade dress can provide protection for the aesthetic value of a product, but the functionality analysis is less stringent for design patents, and the process and costs associated with design patent protection are typically less expensive and time-consuming. Moreover, design patents are filed at the initial stage of product development, while trade dress protects the patent owner once it has begun to sell the product and customers start to associate that design with the product.

Protecting trade dress can be highly valuable, provided that it is not functional. Design patents have a limited term of 15 years, whereas trade dress lasts for as long as the item is in commerce, thereby providing long-term commercial value – even though trade dress is more difficult to obtain and must be policed in the manner of other trademarks in order to constitute a source identifier.

A well-rounded IP programme will consider and leverage various strategies to apply design patent rights, as well as trademark and trade dress protection, in a manner that provides the level and longevity of protection desired for the brand owner’s product and packaging designs. **WTR**



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