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Phone: +1 646 783 7100 | Fax: +1 646 783 7161 | customerservice@law360.com

Samsung V. Apple And The Trend Toward Incremental Value

By **Marianne Ley Hayek, Nathan Associates Inc.**

Law360, New York (January 3, 2017, 1:22 PM EST) -- The U.S. Supreme Court weighed in on the Apple-Samsung phone wars last month, providing what could be a win for Samsung Electronics Co. Ltd. and guidance for determining damages from design-patent infringement.[1] In an 8-0 decision, the high court reversed the lower courts' nearly \$400 million judgment against Samsung for infringing three of Apple Inc.'s design patents relating to the iPhone. Writing for the court, Justice Sonia Sotomayor explained that the lower courts erred in assuming that, because the internal (i.e., noninfringing) components of Samsung's smartphone were not sold independently, damages must be based on the infringer's profits from the sale of the entire phone. The high court disagreed and remanded the issue of damages back to lower courts for consideration.



Marianne Ley Hayek

Two-Step Process

The court described a two-step process for calculating damages from the infringement of design patents: "[first] identify the 'article of manufacture' to which the infringed design has been applied [and second] calculate the infringer's total profit made on that article of manufacture." [2] The court indicated that the lower courts' interpretation of the "article of manufacture" to cover only the end product (the entire phone) "gives too narrow a meaning to the phrase" and remanded for further proceedings the questions related to step one. [3] This decision, which struck down the assumption that the end product was necessarily the "article of manufacture" and the basis for damages, is consistent with recent judicial interpretations of what damages theories are acceptable for the infringement of utility patents. [4]

Damages From Infringement of Utility Patents

While the Supreme Court's decision in the Apple case concerns design patents, similar issues concerning the incremental value of the patented technology have been addressed in judicial opinions concerning utility patent infringement damages. A holder of a utility patent is entitled to its lost profits from the infringement or, at a minimum, a reasonable royalty on the defendant's infringing sales. [5] The majority of patent damages awards are based on reasonable royalties either because the plaintiff does not manufacture the product or because it failed to satisfy the standards for lost profits. When an infringing product, such as a smartphone or a computer, contains many technologies (some of which are not covered by the patent in suit), the choice of a royalty base is not straightforward. In 1989, the Federal Circuit ruled that the patent-holder can claim royalty damages on the entire device when the patented feature "constitutes the basis for consumer demand." [6] If the patent holder fails to demonstrate a clear link between the infringing feature and demand for the entire device, the entire market value rule is not satisfied and the royalty base must then include only the value of the infringing technology. The Apple court's ruling that "the term 'article of manufacture' is broad enough to encompass both a product sold to a consumer as well as a component of that product" could be a signal that design patent damages might soon require a similar test to claim damages on an entire device. [7]

The Entire Market Value Rule

There is considerable confusion and controversy concerning the EMVR and its application to reasonable royalty damages. High-tech products such as computers and telecommunications equipment often have a large number of patented components such that the end product reads on hundreds or even thousands of patents. While patent claims against complex products have led to verdicts that exceed hundreds of millions of dollars, the Federal Circuit has overturned a number of large judgments involving multicomponent products citing the patent holder's failure to either prove the EMVR or adequately apportion the value of the device to account for patented and nonpatented components.[8]

Evolving EMVR Standards

In 1997, based in part on a very lenient interpretation of the EMVR, a jury in the United States District Court for the Eastern District of New York awarded Fonar Inc. \$110.5 million from General Electric's infringement of its patented software contained in magnetic resonance imaging (MRI) devices.[9] The patented feature — the multi-angle oblique (MAO) software — allowed the MRI to take images from multiple angles in a single scan. The MAO software became a standard feature (without a separately listed price) on the scanners, which sold for about \$1 million per device. Fonar used statements from GE's marketing documents that emphasized the benefits of the MAO technology as evidence of the EMVR. The jury awarded damages based on the full value of GE's infringing scanners (approximately \$600 million), and the Federal Circuit upheld the ruling.

By 2009, the Federal Circuit was far less accommodating to EMVR claims. In *Lucent v. Gateway*, the Federal Circuit vacated and remanded a \$358 million verdict against Microsoft Corp. for infringing technology related to a "date picker" function in Microsoft's Outlook software, saying the plaintiff's application of the EMVR was flawed because the patented technology was not "the basis — or even a substantial basis — of consumer demand for Outlook." [10] The court concluded that "Lucent did not satisfy its burden of proving the applicability of the entire market value rule" and vacated the award.[11]

Courts have also ruled that flimsy EMVR evidence won't survive Daubert challenges. In *Cornell University v. Hewlett-Packard*, Judge Randall Rader (who was sitting by designation in the Northern District of New York) interrupted the trial to conduct a Daubert hearing on the plaintiff's proffered royalty base.[12] Judge Rader concluded that Cornell "did not supply credible and sufficient economic proof to support application of the entire market value rule" and excluded testimony on the royalty base.[13] In granting the defendant's motion to exclude in *IP Innovation v. Red Hat*, the court said that the plaintiff's EMVR evidence had "no economic foundation" and that the expert "did not use the type of reliable economic principles and methods required ... for an economic damages expert." [14]

The Federal Circuit specified just what type of evidence would be considered reliable in proving EMVR damages in its 2012 *LaserDynamics* decision.[15] The patent in suit described a method that allows a computer's optical disk drive (ODD) to automatically identify the type of disk (CD versus DVD, for example) before reading the data on the disk. After the jury awarded the plaintiff \$57 million in royalty damages, the district court (Eastern District of Texas) overturned the verdict. On appeal, the Federal Circuit said that for an EMVR claim to be successful, it is not enough that the infringing feature is a necessary condition for the sale, the patent holder must demonstrate that the patented technology "is what motivates consumers to buy [the device] in the first place." [16]

Apportionment

Absent EMVR evidence that the infringing feature is the basis for consumer demand, patent courts require plaintiffs to identify the incremental value of the infringing technology and apportion the royalty base. The Cornell court created a standard for an easily identifiable (apportioned) royalty base - the "smallest salable infringing unit" with close relation to the claimed invention.[17] In *LaserDynamics*, the Federal Circuit affirmed Cornell and made clear that "in any case involving multi-component products, patentees may not calculate damages based on sales of the entire product, as opposed to the smallest salable patent-practicing unit, without showing that the demand for the entire product is attributable to the patented feature." [18] In the 2014 *Virnetx v. Cisco Systems* case the Federal Circuit warned that identifying the smallest salable patent-

practicing unit (SSPPU) "is simply a step toward meeting the requirement of apportionment" and the SSPPU, itself, must be apportioned further if it contains both infringing and noninfringing features.[19]

Measuring Consumer Demand for EMVR

Given the increasingly strict evidentiary standards for EMVR theories, litigators will be well served using standard economic tools to measure the extent to which the patented technology forms the basis for consumer demand. The most frequently used method to estimate demand is regression analysis, a statistical technique that estimates the relationship among variables. Regression analysis is commonly used in antitrust jurisprudence including merger analysis, market definition and damages calculations. A demand model attempts to explain the quantity demanded of a product as a function of the product's price, its features, the level of advertising, and other factors such as consumer incomes and the prices of related goods. Quantity demanded (or "demand") is the dependent variable and the factors that affect demand are the independent variables.[20] A demand model could be expressed as:

$$Q = \beta_0 + \beta_1 \text{Price} + \beta_2 \text{Product Characteristics} + \beta_3 \text{Advertising Expenditures} \\ + \beta_4 \text{Income} + \beta_5 \text{Price of Related Goods} + \varepsilon$$

When regression analysis is not feasible due to data (or other) limitations, qualitative evidence such as market research or consumer surveys can support EMVR theories by indicating the relative importance of the patented feature. Defendants' records or forecasts can be compelling evidence that the infringing feature is (or is not) driving demand for the overall product.

Apportionment Methods

Regression analysis can also help determine the incremental value of the infringing technology and provide an apportioned royalty base. A hedonic price regression is a regression in which the dependent variable is the product's price and the independent variables include product characteristics. It is an empirical method that isolates the amount by which a specific feature of a good contributes to the product's overall price (or value). When a hedonic regression is performed using both infringing and noninfringing products, it will produce an estimate of the value of the infringing feature (or the infringing feature's "contribution" to the overall price).

Conjoint analysis is a commonly used method in marketing research to identify consumer preferences and valuations based on stated preferences and survey results. In a "choice-based conjoint" analysis, respondents are presented with different product options and asked to select the product that they are most likely to purchase. This method is popular because it mimics real life situations where a consumer has to make tradeoffs between price and product attributes and select one product among many options. By evaluating consumers' choices between a product that contains the infringing feature (and a higher price) and a lower-priced product that does not infringe, analysts can quantify the value of the infringing technology and determine the appropriate royalty base.

Whether attempting to prove that the patented technology is the basis for consumer demand or apportioning the royalty base, damages from the infringement of utility patents require sound economic analysis and rigorous, defensible calculations. Royalty damages theories must either provide coherent economic evidence of the EMVR or apportion the royalty base to isolate the value of the infringing technology. Although design patent infringement damages are explicitly exempt from apportionment requirements, the Supreme Court's recent decision in the Apple case could imply a similar trend is on the horizon with respect to identifying the relevant article of manufacture.

Marianne Ley Hayek is managing economist in the Washington, D.C., office of Nathan Associates Inc.

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[1] Samsung Elec. v. Apple Inc., 580 U.S.____(2016).

[2] *Id.* at 5. The Patent Act of 1952 specified damages as the infringer's profits on any "article of manufacture" that contains the patented design.

[3] *Id.* at 8.

[4] The court examined various definitions of the words "article" and "manufacture" and concluded "the term 'article of manufacture' is broad enough to encompass both a product sold to a consumer as well as a component of that product." *Id.* at 6.

[5] 35 U.S.C. § 284. U.S.C. Section 289, however, allows for disgorgement of the infringer's profits as an appropriate remedy for design patents.

[6] State Industries Inc. v. Mor-Flo Industries Inc., 883 F.2d 1573, 1580 (Fed. Cir. 1989).

[7] Samsung Elec., 580 U.S. at 6.

[8] Congress specifically eliminated an apportionment requirement for design patents in 1887.

[9] Fonar Corp. v. General Electric Co., 107 F.3d 1543, 1552 (Fed. Cir. 1997). The verdict was reduced to \$103.4 million on appeal and GE ultimately paid Fonar \$120 million in damages and interest.

[10] Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1337 (Fed. Cir. 2009).

[11] *Id.* at 1338.

[12] Cornell Univ. v. Hewlett-Packard Co., 609 F.Supp.2d 279 (N.D. N. Y. 2009).

[13] *Id.* at 284.

[14] IP Innovation v. Red Hat, 705 F.Supp.2d 687, 5725-5 (E.D. Tex. 2010).

[15] LaserDynamics, Inc. v. Quanta Computer Inc., 694 F.3d 51 (Fed. Circ. 2012).

[16] *Id.* at 68.

[17] Cornell Univ., 609 F.Supp.2d at 288.

[18] LaserDynamics, 694 F.3d at 67-68.

[19] VirnetX, Inc. v. Cisco Systems, Inc., 767 F.3d 1308, 29 (Fed. Cir. 2014).

[20] Two problems that can undermine the regression are multicollinearity and serial correlation. By employing standard econometric techniques (including adopting a more sophisticated specification for the demand model), the researcher can alleviate the bias associated with multicollinearity and serial correlation.