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## **Huawei v. Samsung – An Insight from the Shenzhen Intermediate Court on Finding Infringement on Standard Essential Patent**

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### **Background**

Samsung initiated a cross-licensing discussion in July 2011 with Huawei on standard essential patent (SEP), both parties could not come to agreeable terms in the next six years. On May 25, 2016, Huawei filed two lawsuits alleging Samsung infringed on two of its 4G SEPs No. 201110269715.3 (Method and apparatus for sending control signaling), and No. 201010137731.2 (Method, base station, and user equipment for feeding back ACK/NACK information for carrier aggregation) before the Shenzhen Intermediate Court and requested for an injunctive relief.

On January 11, 2018, the Shenzhen Intermediate Court announced its decisions. The court found Huawei's two patents are 4G SEP and Samsung infringed on Huawei's SEPs when making, offering to sell, and selling 4G terminal products in China. The court granted Huawei's prayer for an injunctive relief and ordered Samsung to cease all infringing activities. Additionally, the court states that because of the nature of these cases involve 4G SEPs, the parties may continue to negotiate after the decisions become effective. If the parties reach an agreement and request this court not to execute the court order, such request should be granted.

### **Summary of the Court Decisions**

The court presented two questions to be determined. First, a FRAND issue on whether Huawei and Samsung breached the FRAND obligation that steered both parties away from a license agreement. Second, to determine and confirm whether the two Huawei 4G patents are standard essential, whether Samsung infringed upon Huawei's two patents, and whether Samsung's non-infringement arguments can be supported.

- I. Analyze the course of negotiations between Huawei and Samsung to determine whether either party was at fault, and whether either party satisfied the FRAND commitment**
  - a. During the course of licensing negotiation, Samsung were obvious at fault and violated the FRAND principle**

The court finds that Samsung violated the FRAND principle when Samsung insisted on negotiating only by bundling SEPs and non-SEPs, and refused Huawei's proposal to negotiate only on SEPs. Samsung's insistence on negotiating only by bundling SEP and non-SEPs caused serious delay to the negotiation.

Samsung invited Huawei to negotiate a cross-licensing agreement on their perspective SEPs and non-SEPs. Huawei swiftly replied with its willingness to enter into a negotiation but only on SEPs. Samsung insisted on negotiating only the bundle because it believed that a cross-license with a broader scope would be mutually beneficial to both parties. Huawei did not agree and reinstated its position on negotiating only SEPs.

The court reasons that according to the FRAND principle and customary international patent cross-licensing negotiation proceedings, if parties to a patent cross-licensing negotiation agreed to discuss a bundle of both SEP and non-SEP, then the parties should proceed accordingly. However, if one party insists on only to negotiate SEP, then the other party should not insist on adding non-SEP to the negotiation. In the present case, after Huawei informed Samsung its intention to negotiate only on SEPs, Samsung continued to insist on negotiate the bundle of SEPs and non-SEPs, which violated the FRAND principle.

During the course of technical discussions, the court finds that Samsung unreasonably delayed the technical discussions and obviously violated the FRAND principle because of Samsung's lack of response to Huawei's claim charts and offers of royalty rates. The court further explains that even when Samsung defended its lack of response was because the on-going litigations with Apple, Ericsson, and IDC, Samsung, as a multinational company, should have ample resources to deal with technical analysis, respond to Huawei's offers, and maintain good flow of the negotiation even when it has other ongoing litigations.

The court continues to reason that SEP owner usually have a good understanding of the strength of its patents and usually offers good faith royalty rates accordingly. If the offer-receiving party is willing to negotiate, it will usually diligently respond to the offer. Huawei, upon receiving Samsung's first communication in July 2011, offered Samsung six royalty rates between 2012 and 2015 based only on its SEPs because Huawei, as a SEPs owner, have a good understanding of the strength of its patents and offered good faith royalty rates accordingly. However, during that period Samsung only responded to Huawei once and without substantive contents to carry on further licensing negotiation. Neither did Samsung's only response include a proper reason for its insistence on negotiating only the bundle as it initially suggested, nor did it provide reasons for delaying the discussion other than its believe that without a prior agreement on whether the discussion should be only on SEP or the bundle. Further, the court explains that even during the court-initiated two settlement conferences, Samsung did not respond to Huawei's royalty rate offer until this court expressly explained that the court will consider the parties' actions during the settlement conferences when making its decision. Moreover, Samsung's response was once again without substantive content to carry on further negotiation and was essentially identical to its response to Huawei in 2015. Samsung's actions were objectively in fault, in bad faith, and violated the FRAND principle.

**b. During the course of licensing negotiations, Huawei did not have obvious faults and did not violate the FRAND principle**

After Huawei received Samsung's invitation for licensing negotiation, Huawei responded diligently to the invitation by informing that it would like to negotiate with Samsung only on SEPs, and by providing claim charts within Huawei's proposed time frame for technical discussions, and by providing six royalties during May 2012 and December 2015. Huawei also actively sought of Samsung's consent to submit disputed FRAND terms to a third party arbitration body, and promised that once the dispute is submitted to a third party arbitration body Huawei would withdraw all pending lawsuits. Huawei also provided its royalty rates as requested in the first of the two court-initiated settlement conferences.

However, the court also finds that Huawei was at fault during the negotiation by providing confusing messages that misled Samsung to believe that Huawei has acquired Sharp's 189 LTE SEPs, where Samsung later discovered that Huawei only acquired 54 LTE SEPs from Sharp. Huawei's misleading messages incurred additional burden on Samsung to consider

additional technical discussions. Huawei, realizing its confusing message, later explained to Samsung the exact number of Sharp LET SEPs it has acquired. The court finds that though Huawei was at fault by providing misleading messages, but along with the later explanations, Huawei's misleading message did not significantly delay the negotiation, which should not be seen as violating the FRNAD principle.

**II. Analyze the details of royalty offers by Huawei and Samsung to determine whether both parties were at fault and whether both parties satisfy the FRAND principle**

**a. Determine the strength of Huawei's and Samsung's 3G and 4G SEPs**

The court determines Huawei and Samsung's 3G and 4G SEP strengths from the evidence submitted by both parties, including the number of adopted approved proposals by 3GPP, the number of SEPs claimed to the ETSI, and the number of patents invalidated during the course of the pending lawsuits.

The court referenced from the following reports submitted by both parties. Huawei submitted three ABI Research's reports: LTE Innovation by Company: An Analysis of LTE Standards Body Contributions, Standards Leadership within the 3GPP, LTE Standard Leadership and Terminal-Essential Patents Portfolios Analysis Within the 3GPP, one Cyber Creative Institute report: Evaluation of LTE essential patents declared to ETSI, one Fairfield Resources International report: Review of Patents Declared as Essential to WCDMA Through October, 2008, and a few expert research reports including from Dr. Rudi Bekkers. Samsung submitted a Taiwan IP Office's report of 2014 Telecommunication Industry Patent Trend and Patent Litigation Analysis Research Project, Thomson Reuters' two reports on patent analysis of LTE standards, and other expert reports.

In addition, the court also requested a report of LTE Standard Essential Patent Evaluation Report from the China Academy of Telecommunication Research of MIIT.

The court references to the said reports for the number of SEPs each party owns, and the percentage of SEP each party owns around the world when available. The court also takes reference of the market share of each party in different counties around the world.

Further, from the number of patents invalidated during the course of licensing negotiation, the court reasons that Huawei's patent quality is better than Samsung because each party filed 8 invalidations during the course of licensing negotiation, where only one of Huawei's patents was invalidated, while four of Samsung's patents were invalidated.

When consider referencing the Thomson Reuters reports Samsung submitted, the court states that these reports only analyze the parties' US LTE SEPs, which cannot entirely reflect the strength of both parties' global portfolio. The court reasons that SEP has geographic limitation, each country's patent application examination is different, and the marketplace for both companies are not entirely alike. In this case, where the negotiation between the two parties is on their worldwide SEPs, only a comprehensive consideration of those worldwide SEPs owned by each party can better reflect the strengths of the patents.

The court also specifically points out that the royalty rates provided in the Huawei v. IDC case cannot be used as a reference in this case because IDC is a non-practicing entity, compare to Huawei and Samsung, hires significantly less employees and obtains significantly less patents. Given the nature of IDC's operation style and the number of

patent it owns, IDC's patent strength is not in the same level compare to either Huawei or Samsung.

- b. Huawei offered Samsung royalty rate based on its SEP strength, which satisfies the FRAND principle; Samsung offered Huawei royalty rate based on the SEP strength of both parties, which did not satisfy the FRAND principle**

The court provides a few factors to determine whether Huawei's offer satisfies the FRAND principle: the strength of Huawei's 3G and 4G SEPs, the market price for the 3G and 4G mobile phones made and sold by Samsung, and the aggregate royalty rate of 3G and 4G SEP so to avoid royalty rate exceeding the regular profit margin in the industry.

The court looks at the six royalties Huawei offered to Samsung and finds that the royalty rate satisfies the FRAND principle, because Huawei offer its royalty rates in according to the said factors. In particular, the court states that Huawei's 3G SEP strength equals to about 5% of the worldwide 3G SEPs, and 3G's aggregate royalty rate is 5%. Huawei's 4G SEP strength equals to about 10% of the worldwide 4G SEPs, and 4G's aggregate royalty rate is between 6% - 8%. Given the said numbers, Huawei's royalty rate and royalty per device satisfies the FRAND principle, because Huawei's royalty rate is based on the strength of its worldwide portfolio, aggregate royalty rate of 3G and 4G SEPs, and Samsung's mobile phone market sales. Huawei's offers did not deviate from its SEP strength, and still give Samsung rooms for negotiations.

In contrary, the court finds that the royalty rate offered by Samsung was not in proportion when comparing the royalty rate Samsung offered to Apple of 2.4% for UMTS SEPs. The court explains that proposed royalty rate is usually different from the agreed royalty rate, and that rate can be negotiated but the rates shall not significantly depart from the value and strength of each party's SEP. Here, Samsung offered a royalty rate that obviously departed far away from the value and strength of both parties' SEP, which shows Samsung's obvious bad faith. The court, again, emphasizes that the IDC rates determined in Huawei v. IDC is not to be referenced in this case, because the royalty rate determined was for China only but not for a worldwide license.

### **III. Analysis of the technology involved in this case**

- a. Whether the technical features of Huawei's patents map to the corresponding wireless communication standard, and whether Samsung infringed upon Huawei's patents**

The technical standards of 3GPP's R8, R9, and R10 have become China's wireless communication industry and business standards. According to this court's comparison, the patents in dispute corresponds to the 3GPP standards and are 4G SEPs. Samsung's making, offering to sell, and selling of its 4G terminal products must have implemented the technology protected by the asserted patent claims. Thus, Samsung must have infringed upon Huawei's patents.

- b. Samsung's rebuttal on non-infringement**

In the patent no. 201110269715.3 case (Method and apparatus for sending control signaling), Samsung's Chinese subsidiaries (also listed as defendants) argued that the asserted infringing products were acquired legitimately from Qualcomm and Samsung. However, the court disagrees because the defendants failed to proof that Huawei has licensed Qualcomm or Samsung the asserted 4G SEPs. Moreover, Samsung's Chinese

subsidiaries are only manufactures who implemented the infringing products, they do not have rights to rebut under the legitimate source of goods theory. Moreover, since Huawei did not ask for a monetary relief, a defense of legitimate source of goods cannot be applied.

In the patent no. 201010137731.2 case (Method, base station, and user equipment for feeding back ACK/NACK information for carrier aggregation), Samsung's non-infringing argument does not stand because the asserted claims mapped with the Chinese standards and Samsung failed to provide evidence in contrary.

**c. Samsung's rebuttal on patent exhaustion**

In Samsung's rebuttal on patent exhaustion, Samsung argued that because Huawei and Qualcomm has prior SEP license agreement. Since the asserted infringing products were purchased from Qualcomm, Huawei's patents were exhausted after its sales transaction with Qualcomm. The court explains that a patent right exhausts when the patentee or an authorized party who makes the product, and the subsequent use and sale of that product should be considered to have obtained implied authorization from the patentee; in terms of a method patent, the patentee or an authorized maker of a method patent who makes the equipment for implementing the patented method, and uses that equipment to implement the patented method. Applying the said patent exhaustion rule, the court disagrees with Samsung's argument and points out that in the product license agreement between Huawei and Qualcomm, Huawei expressly excludes Qualcomm any Pass-Through rights. Therefore, the question of patent exhaustion is inapplicable in this case.

**d. Samsung's rebuttal using prior arts**

The prior arts provided by Samsung in both cases were denied by the court, because none of the prior arts properly disclosed the technical features found in both patents.

**IV. Conclusion**

Since July 2011, Huawei and Samsung has engaged in license negotiation for over six years. Huawei did not have obvious fault in the court of the negotiations, and follows the FRAND principle. In contrary, Samsung was at fault and violated the FRAND principle during the course of the negotiations and in the details of its response to Huawei's offers.

Huawei sought injunctive relief from this court only after diligently seeking an agreement from Samsung and suggested reaching an agreement through a third party arbitration body without success. Samsung also acted in bad faith during the court-initiated settlement conferences. For the above reasons, the court now orders the defendants immediately stop infringing the asserted 4G SEPs owned by Huawei.