Nos. 2018-1363, -1732; 2018-1380, -1382

United States Court of Appeals for the Federal Circuit

TCL COMMUNICATION TECHNOLOGY HOLDINGS LIMITED, TCT MOBILE LIMITED, TCT MOBILE (US), INC.,

Plaintiffs-Appellees,

v.

TELEFONAKTIEBOLAGET LM ERICSSON, ERICSSON INC.,

Defendants-Appellants.

ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON,

Plaintiffs-Appellants,

v.

TCL COMMUNICATION TECHNOLOGY HOLDINGS LIMITED, TCT MOBILE LIMITED, TCT MOBILE (US), INC.,

Defendants-Appellees.

On Appeal from the United States District Court for the Central District of California in No. 2:15-02370-JVS-DFM, Judge James V. Selna; 8:14-cv-00341-JVS-DFM, Judge James V. Selna

BRIEF OF INTERDIGITAL, INC. AS AMICUS CURIAE IN SUPPORT OF DEFENDANTS-APPELLANTS

DAVID S. STEUER
MICHAEL B. LEVIN
MAURA L. REES
WILSON SONSINI GOODRICH & ROSATI
650 Page Mill Road
Palo Alto, CA 94304
Telephone: (650) 493-9300
Facsimile: (650) 565-5100

Counsel for InterDigital, Inc.

CERTIFICATE OF INTEREST

Counsel for amicus curiae certifies the following:

1. The full name of every party represented by me is:

   InterDigital, Inc.

2. The name of the real party in interest represented by me is:

   InterDigital, Inc.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

As of December 31, 2017, BlackRock, Inc. (a publicly held company) beneficially owned 14.5% of the common stock of InterDigital, Inc., as reported on a Schedule 13G/A filed by BlackRock, Inc. with the Securities and Exchange Commission on January 19, 2018.

4. The names of all law firms and the partners or associates who appeared for the party or amicus now represented by me in the trial court or agency, or who are expected to appear in this Court, are:

WILSON SONSINI GOODRICH & ROSATI
David S. Steuer, Michael B. Levin, Maura L. Rees

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. *See* Fed. Cir. R. 47. 4(a)(5) and 47.5(b).

None.

DATE: June 18, 2018 /s/ David S. Steuer

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IDENTITY AND INTEREST OF AMICUS CURIAE[1]

InterDigital, Inc. is a Pennsylvania corporation with headquarters in Wilmington, Delaware. It was founded in 1972 with the objective of developing new and innovative wireless technologies. It became a publicly traded company in 1981, and is now a significant commercial research and engineering organization, with research centers in Pennsylvania, New York, California, Maryland, Canada, England, Germany and South Korea. At the end of 2017, InterDigital, Inc. and its affiliates (hereinafter "InterDigital") had about 350 employees, approximately 190 of whom are engineers. Around 80% of its engineers hold advanced degrees, 70 of whom have Ph.Ds.

For over four decades, InterDigital has been a pioneer in mobile technology and a key contributor to global wireless standards. InterDigital does not manufacture devices; instead it has chosen to focus on innovation through advanced research, often collaborating or partnering with other research-focused organizations on specific projects. Since 1993, InterDigital has invested more than $1 billion in research and development. InterDigital's R&D efforts have resulted in the company owning a portfolio of approximately 18,000 patents and patent applications, spanning some 50 jurisdictions worldwide, and about 90% of its

[1] No counsel for any party authored this brief in whole or in part. No party, party's counsel, or any person other than amicus curiae or its counsel made a monetary contribution intended to fund the preparation or submission of this brief. All parties have consented to the filing of this amicus brief.

cellular and wireless patent portfolio was developed in-house. The primary source of InterDigital's revenue comes from the royalties received from licensing its worldwide portfolio of patents developed by the company's scientists and engineers. InterDigital has entered into dozens of patent licenses. Among its current and past licensees are prominent companies in the mobile wireless space, such as Apple, Samsung, Sony, Panasonic, RIM/Blackberry, HTC, Huawei, LG Electronics, Pegatron, Sanyo, NEC, and Sharp. InterDigital's constant commitment to innovation and its particular focus on developing new and innovative wireless telecommunication standards have benefitted markets, technology, and consumers around the globe.

InterDigital's experience in participating in standardization efforts and in licensing a large global patent portfolio relating to wireless standards gives it a unique perspective on the issues raised in this appeal. For more than twenty years, InterDigital has participated in technology standardization efforts by standards development organizations (SDOs), including development of 2G, 3G, 4G, and 5G cellular standards, through its membership in the European Telecommunications Standards Institute (ETSI). Over the past two decades, InterDigital has disclosed thousands of its patents and patent applications to ETSI as potentially standards-essential for cellular standards. InterDigital thus has long and extensive experience with industry practice in licensing pursuant to SDO policies providing for owners of standards-essential patents (SEPs) to be prepared to grant licenses on fair, reasonable, and non-discriminatory (FRAND) terms.

INTRODUCTION

The district court's decision undermines the basis on which innovators contribute technology to standards, which in turn threatens the viability of consensus-based industry standards. In general, the district court's methodology for analyzing FRAND royalty terms would lead to systematic undercompensation of patent owners. Such an outcome is not consistent with the actual FRAND commitments in the applicable ETSI IPR Policy, which has the express objective of balancing the needs of standardization with the rights of patent owners and providing adequate and fair compensation for the use of patents.

As explained in Ericsson's opening brief and herein, the district court's decision in this case rested on multiple errors of law and should be reversed. The district court relied heavily on a "top down" analysis that was flawed and unreliable, rather than relying first on market-based evidence of comparable licenses. The district court also erroneously concluded that a dollar-per-unit "floor" applied to a percentage rate license was inappropriate based on the mistaken view that patented technology does not have at least a minimum value that should be reflected in a royalty floor.

ARGUMENT

I. The Importance of Standards and Incentivizing Innovation

New generations of technology do not appear spontaneously. They are created through sustained research and development efforts, which require painstaking work and significant and risky investments of resources. Companies that prioritize investment in research are incentivized to do so by the prospect of earning a fair reward on their inventions. SDOs involve many industry participants working together to include the best technology in industry standards. Thanks to the technical specifications developed by SDOs, manufacturing companies have access to a wealth of innovative technology to be used in their products, which are also able to interoperate because they are designed to comply with consensus-based standards.

Because standards would not exist without the contributions of innovators, SDOs have sought to enact policies that equitably reward those who contribute technology. Technology developers can obtain intellectual property rights (IPRs) such as patents, and SDO policies concerning IPRs have historically sought to ensure that IPRs can be reasonably enforced. In this way, SDOs can achieve a balanced, level playing field between SEP owners who contribute technology, and manufacturers who utilize that technology in their products.

In particular, the ETSI IPR Policy at issue in this lawsuit expressly states its objective of achieving such a balance. Section 3.1 of the ETSI IPR Policy states that its objective is to adopt "solutions which best meet the technical objectives" of the telecommunications sector, and that:

> In achieving this objective, the ETSI IPR POLICY **seeks a balance** between the needs of standardization for public use in the field of telecommunications and the rights of the owners of IPRs.

ETSI IPR Policy § 3.1 (emphasis added). The next section of the Policy expressly provides that:

> **IPR holders** whether members of ETSI and their AFFILIATES or third parties, **should be adequately and fairly rewarded for the use of their IPRs** in the implementation of STANDARDS and TECHNICAL SPECIFICATIONS.
>
> *Id*. at § 3.2 (emphasis added).

In order to "reduce the risk" that patents are unavailable to those using the standard, but at the same time provide a mechanism for patent owners to be fairly and adequately compensated for the use of their IPR, ETSI may ask the owner of "Essential IPR" to provide an "undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory terms and conditions under such IPR . . . ." *Id*. at § 6.1. Contrary to the arguments of TCL that were accepted by the district court, the ETSI IPR Policy and its FRAND commitment are ***not*** concerned only with making essential IPRs available to manufacturers, or with protecting manufacturers from "hold-up." Instead, the

Policy provides that the interests of patent owners are equally to be protected in order to achieve a balanced result that fosters continued investment in the standards development process.

Failure to recognize the crucial balance between patent owners and manufacturers in implementing and interpreting ETSI IPR Policy would lead to damaging consequences in industries that rely on standardized technologies. If interpretations of FRAND are tilted entirely in favor of manufacturers, leading to drastically reduced royalties available for SEPs, incentives to innovate will be greatly diminished. This is clearly not the intention of the ETSI IPR Policy that governs the licensing declarations at issue in this case. Rather than relying on hypothetical economic theories about FRAND, courts addressing such disputes should base their decisions on the operative written policies governing the licensing commitments at issue, particularly where the policy clearly and expressly sets forth its objectives. *See, e.g, Ericsson. Inc. v. D-Link Sys., Inc.,* 773 F.3d 1201, 1231 (Fed. Cir. 2014) (trial courts "should also consider the patentee's actual RAND commitment"). Those objectives should in turn guide the court's analysis. Any analytical approach that is aimed solely toward minimizing royalties at the expense of IPR owners for the benefit of manufacturers is not consistent with the goals of standardization at ETSI, and threatens to seriously inhibit innovation and the advancement of technology.

II. The District Court Used an Erroneous "Top Down" Patent Counting Methodology

The district court erroneously relied on "royalty stacking" and "hold up" as its basis for using a "top down" methodology for determining FRAND royalty terms without any evidence of either. In the context of patent damages law, a factfinder should not assume the presence of royalty stacking or hold up without evidence demonstrating that it has occurred in that case. *See Ericsson. Inc.*, 773 F.3d at 1234. Here, the district court erred by accepting a "top down" methodology in an effort to remedy alleged royalty stacking and hold up, in the absence of evidence that either of these were actually present as between Ericsson and TCL. *Id*. ("Certainly something more than a general argument that these phenomena are possibilities is necessary."). Where hold-up and royalty stacking have not been established by evidence, a "top down" should not be preferred.

This purely theoretical analysis is not based on real world market results, and therefore is inferior to an analysis that relies on comparable licenses. *See infra* Section III. The methodology employed by the district court also suffers from numerous flaws that render it unreliable.

<u>First</u>, the district court's "top down" methodology treats all patents as having equal value, and relies on straight "patent counting" to determine "shares" of SEPs attributable to each company with disclosed SEPs. Ericsson correctly notes that a "patent counting" methodology that treats each patent as having equal value is

plainly unreliable. In InterDigital's experience, patents can differ greatly in scope and in their technical contributions to a standard. And, as Ericsson further argues, in the context of patent damages law, this Court's precedent has been clear that the value added by a patented feature is a critical aspect of a reasonable royalty analysis. Ericsson Br. 37-38.

Second, there has been no industry acceptance or establishment of "maximum aggregate royalty rates" for 2G, 3G, or 4G cellular standards. The district court's reliance on predictions by Ericsson and others of total aggregate royalty rates in press releases is not an adequate basis for the district court to apply such unfounded statements as a "cap" on royalties for the entire industry. Many longtime industry participants such as InterDigital have made no such statements relating to predicted "maximum aggregate royalties." There has been no industry consensus or agreement to such caps. To the contrary, the evidence at trial demonstrated that proposals had been made at various times for establishing a "proportionality/patent counting" regime, but these had been rejected by ETSI, and were never adopted by the industry as a whole. Thus, even if the district court's methodology were to be accepted in the specific situation of a licensor that made statements endorsing a "maximum aggregate royalty rate," that methodology should not be given more general application.

Third, the district court's "maximum aggregate royalty rate" was treated as a U.S. rate, to which the district court made adjustments to arrive at rates for other regions. However, the evidence relied on by the court to select this "maximum aggregate royalty" consisted of statements by non-U.S. companies such as Ericsson about expected worldwide licensing – meaning that the predicted "aggregate royalty" should be construed either as a uniform worldwide rate or, to the extent regional rates are used, as a blended average of those rates, not the rate in the highest-rate region. The district court sought to derive regional rates reflecting that Ericsson's U.S. portfolio was stronger than its portfolios in other regions. Thus, to the extent one were to rely on such statements, the stated "aggregate rate" should have been scaled upward to arrive at a U.S. rate.

Fourth, Ericsson correctly points out that the level of patent analysis reflected by the study presented by TCL's experts is so superficial as to be meaningless. Ericsson Br. at 47. The analysis required to determine whether a patent qualifies as "essential" under the ETSI IPR Policy definition[2] is a time-

[2] ETSI IPR Policy § 15: "'ESSENTIAL' as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL."

consuming and costly one. In order to prove essentiality in court, one would undertake an analysis that involves review of complex technical materials including patent documents and wireless telecommunications standard specifications. It would require establishing the proper claim construction for the patent's claims, performing an infringement analysis against the relevant standard specification, and a determination that the patented invention represents the only way to comply with the specification.[3] The approximately twenty minutes per patent family that Concur IP devoted to this task is woefully inadequate, and cannot be expected to produce anything remotely approaching reliable results.

Fifth, the district court's analysis of the effect of newly issued and expired patents was incorrect. In determining the royalty attributable to Ericsson's patents, the district court eliminated expired patents from the numerator representing Ericsson's SEPs, but not from the denominator representing all of the SEPs in the industry. While the district court believed that this accounted for the fact that expired patented technology enters the public domain, this would not be the case to the extent other patents with longer terms continue to cover the same technology. Further, eliminating expired patents from the numerator, but not the denominator,

[3] Of course, even then, the scope of a patent is a legal determination that can only be made by an adjudicator such as a court. The most a patent owner or other party can do is reach a conclusion based on its own analysis and belief, but this does not in any sense establish essentiality.

results in a ratio that is skewed against the patent owner. Unless there is a reason to believe that Ericsson's patents expire at an unusually high rate as compared to other patent owners, an adjustment for expiration is unnecessary, as Ericsson's share would remain the same over time. Indeed, in assessing the effect of newly issued patents during the license term, the district court assumed that Ericsson's new patent issuances would occur at the same rate as other patent owners, so no adjustment for newly issued patents was made. Because the district court's methodology assumed a constant "maximum aggregate royalty" over time (rather than one that declines due to net expirations or increases due to net issuances), the function of the numerator and denominator should simply be to calculate Ericsson's share, not to account for changes to portfolios.

III. A Comparable Licenses Methodology Should Be Preferred Over "Top Down" Where Adequate Comparable Licenses Exist

Other district court cases that have employed patent analysis methods such as "top down" have relied on such methods only after concluding that no comparable licenses were available on which to perform a market-based analysis. In the case of *Microsoft v. Motorola*, one license had almost no payments actually made under it; another license included a broad range of technologies unrelated to the WiFi and video technologies at issue in the lawsuit; and a third set of licenses from a company acquired by Motorola did not include the same patents at issues in the lawsuit. *Microsoft Corp. v. Motorola, Inc.*, Case No. C10-1823 JLR, 2013 U.S.

Dist. LEXIS 60233 (E.D. Wash. Apr. 25, 2013). In the *Innovatio* case, the patent plaintiff did not point to any prior licenses it had entered into including the patents at issue in the lawsuit, and sought to rely only on third-party licenses. *In re Innovatio IP Ventures, LLC*, Case No. 11C 9308, 2013 U.S. Dist. LEXIS 144061 (N.D. Ill. Sept. 27, 2013). Thus, these courts had no opportunity to review a lengthy licensing history from the same licensor covering many of the same patents at issue. In the absence of any evidence of comparable licenses, these courts were left to employ a far less direct and less reliable analysis based on attempting to value the technical "importance" of individual patents.

Real world market outcomes are the most probative of value, and consequently analysis of comparable licenses should be the preferred method of analyzing FRAND terms. Resort to "top down" or other patent analysis methods, when comparable licenses are available, is unwarranted, particularly in light of the many sources of unreliability inherent in attempting to analyze the contributions of literally thousands of patents to an industry standard.

In the case of cellular SEPs subject to ETSI licensing declarations, comparable licenses will generally be the most appropriate method of analysis because the ETSI IPR Policy deliberately does not include any formula or checklist of specific criteria that must be met in order for license terms to qualify as "FRAND." Rather, the ETSI IPR Policy's framework is that parties will engage in bilateral negotiations to craft license agreements that are tailored to their particular circumstances. The parties to these license negotiations are well aware of the applicable FRAND commitments and they reach agreement on terms with these considerations in mind. The entities that obtain licenses for cellular SEPs (*i.e.*, manufacturers of cellular phones) are generally large, sophisticated, multinational corporations engaging in arm's length negotiations with the assistance of legal counsel. The resulting license agreements are thus a highly reliable indication of market valuation with respect to the licensed patent portfolio.

Use of comparable licenses is also consistent with similar considerations in patent damages law in determining a reasonable royalty for patent infringement. Evidence of comparable licenses tending to demonstrate an established royalty is the first and most important *Georgia-Pacific* factor. *Georgia-Pacific Corp. v. United States Plywood Corp.,* 318 F. Supp. 1116 (S.D.N.Y. 1970); *see also Monsanto Co. v. McFarling*, 488 F.3d 973, 978 (Fed. Cir. 2007) ("An established royalty is usually the best measure of a 'reasonable' royalty for a given use of an invention . . . ."). In patent infringement cases involving FRAND commitments, this Court has continued to emphasize the important role of comparable licenses. *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys*., 809 F.3d 1295, 1303-04 (Fed. Cir. 2015) (noting that in appropriate cases, "comparable license valuations . . . may be the most effective method of estimating the asserted patent's value"); *Ericsson, Inc.*, 773 F.3d at 1227 ("licenses may be presented to the jury to help the jury decide an appropriate royalty award"). The strongly probative nature of comparable licenses in valuing patented technology leads to the conclusion that a court evaluating FRAND royalty terms should look to comparable licenses when they are available, and should avoid far less reliable measures relying on "top down" or other patent analysis methods.

IV. Royalty Floors Are Not "Per Se" Discriminatory

The district court erroneously found that royalty "floors" applicable to percentage royalties are "per se" discriminatory, and therefore the district court declined to apply a dollar-per-unit floor to the percentage royalty rate in the court's final injunction. The district court's holding was limited to the situation of applying a royalty floor to a court-determined percentage royalty, and the court acknowledged that parties in negotiated license agreements may well agree to floors. Indeed, royalty floors (as well as royalty caps) are common and widely accepted features of percentage rate licenses in the cellular industry, and the district court did not suggest that such negotiated licenses are "discriminatory."[4] However, by failing to recognize the important purposes that are served by royalty

[4] Appx95 ("To be sure, in the course of private negotiations, parties may enter into a variety of licensing schemes that reflect each party's unique assessment of the risk of a particular arrangement.").

floors, the district court erroneously determined that such a term should not be included in the court-determined FRAND terms.

As noted by Ericsson in its brief, there are very good reasons for including a royalty floor. Ericsson Br. 52-59. A patent owner who receives a percentage of product selling price as a royalty should have some protection against gamesmanship by the licensee with respect to selling price. For example, a licensee might sell a licensed product as a "loss leader" (or even give it away for free) as a marketing strategy for selling other products. Or a licensee might give products away for free as part of an alternative business model, such as an advertising-supported system where the product displays advertisements. There are any number of arrangements whereby the licensed product could be distributed without generating sales revenue on which a percentage royalty would be due. Floors provide a simple and convenient way to guard against this type of manipulation, which would subvert the intent of a percentage-of-revenue license.

Further, under patent damages case law, it is essentially always the case that an above-zero reasonable royalty will be awarded for a valid and infringed U.S. patent. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014). Under U.S. damages law, patents are considered to have a minimum value by which the patent owner will be compensated in the event of infringement. The Patent Act requires the court to award damages for an infringed patent "in no event less than a reasonable royalty." 35 U.S.C. § 284. The district court appeared to ignore this legal principle when it found that "there is no support in the record that a package of SEPs has a fixed, determinable value" and found no reason to include floors in order to ensure "a certain minimum amount of revenue." The district court's categorical rejection of royalty floors reflects an erroneous failure to recognize that patents do have at least some minimum value.

Finally, as explained in Ericsson's brief, there is no discrimination inherent in fixed dollar-per-unit royalties (whether applied as a floor or cap on a percentage royalty or as a standalone royalty). Ericsson Br. 52-55. While a low-price vendor like TCL might claim "discrimination" because a dollar-per-unit royalty is a higher percentage of its selling price than it would be for a high-price vendor like Apple, the same complaint could be made in reverse by the high price vendor. That is, Apple could equally argue that percentage royalties are discriminatory because they result in higher royalty payments on high-priced phones. This sort of "Catch-22" in which the patent owner is accused of discrimination no matter what type of royalty is employed clearly cannot form the basis for a coherent or reasonable theory by which to analyze discrimination.

CONCLUSION

Amicus curiae InterDigital respectfully submits that the district court's decision was based on numerous errors of law, and should be reversed.

Dated: June 18, 2018

Respectfully submitted,

/s/ David S. Steuer

DAVID S. STEUER
MICHAEL B. LEVIN
MAURA L. REES
WILSON SONSINI GOODRICH & ROSATI
650 Page Mill Road
Palo Alto, CA 94304
Telephone: (650) 493-9300
Facsimile: (650) 565-5100

Counsel for InterDigital, Inc.

CERTIFICATE OF SERVICE

I hereby certify that on this 18th day of June, 2018, I caused the foregoing Brief of InterDigital, Inc. as Amicus Curiae to be electronically filed with the Clerk of the Court for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF system.

/s/ David S. Steuer

CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitations of Federal Circuit Rule 32(a), because it contains 3,807 words as determined by the Microsoft Word 2010 word-processing system used to prepare the brief, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Federal Circuit Rule 32(b).

This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type-style requirements of Federal Rule of Appellate Procedure 32(a)(6) because it has been prepared in a proportionally spaced typeface using the Microsoft Word 2010 word-processing system in 14-point Times New Roman font.

/s/ David S. Steuer
DAVID S. STEUER