

Docket No. 19-16122

In the
United States Court of Appeals
For the
Ninth Circuit

FEDERAL TRADE COMMISSION,

Plaintiff-Appellee,

v.

QUALCOMM INCORPORATED, a Delaware corporation,

Defendant-Appellant.

*Appeal from a Decision of the United States District Court for the Northern District of California,
No. 5:17-cv-00220-LHK · Honorable Lucy H. Koh*

**BRIEF OF AMICUS CURIAE ALLIANCE OF U.S. STARTUPS &
INVENTORS FOR JOBS (“USIJ”) IN SUPPORT OF APPELLANT
QUALCOMM INCORPORATED**

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The Alliance of U.S. Startups and Inventors for Jobs (“USIJ”) submits this brief as *amicus curiae* pursuant to Fed. R. App. P. 29(a), Ninth Circ. R. 29(a), in support of Appellant Qualcomm Incorporated in this appeal from the Judgment entered May 21, 2019 in the U.S. District Court for the Northern District of California (“Judgment”), based on “Findings of Fact and Conclusions of Law” filed the same date by Hon. Lucy H. Koh (“Opinion” or “Op.”).

INTEREST OF *AMICUS CURIAE*

Amicus curiae USIJ is a coalition of 30 startup companies and their affiliated executives, inventors and investors that depend on stable and reliable patent protection as an essential foundation for their businesses. A list of USIJ members is attached as Appendix A.¹ USIJ was formed in 2012 to address concerns that legislation, policies and practices adopted by the U.S. Congress, the Federal Judiciary and certain Federal agencies were and are placing individual inventors and research-intensive startups (“the invention community”) at an unsustainable disadvantage relative to their larger incumbent rivals, both domestic and foreign, and others that would misappropriate their inventions. A disproportionately large

¹ No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the *amicus curiae* made a monetary contribution to its preparation or submission. *Amicus* USIJ obtained the permission of both parties to file this brief.

number of breakthrough inventions are attributable to individual inventors and small companies.

USIJ's fundamental mission is to assist and educate Members of Congress and the Federal Judiciary and leaders in the Executive branch regarding the critical role that patents play in our nation's economic system and the particular importance of startups and small companies to our country's dominance of strategically critical technologies for more than a century.

The author of this brief, Robert P. Taylor, is Member of the USIJ Advisory Board. He is a former Chair of the Antitrust Section of the American Bar Association, a Fellow of the American College of Trial Lawyers, a Lifetime Member of the American Law Institute, and served as a Member on the 1992 Commission on Patent Law Reform appointed by the U.S. Secretary of Commerce.

SUMMARY OF ARGUMENT

The decision below misinterprets both antitrust law and patent law in ways that, if allowed to stand, will diminish significantly the incentives of entrepreneurs, startups, inventors and their investors to pursue risky new ventures and unproven technologies. Many new technologies invented by entrepreneurs and small companies have value only if they can be licensed to sellers of larger products or systems. The district judge's vehement and repetitious use of the term "anticompetitive" to describe the normal give and take that occurs in contract

negotiations vilifies a patent owner's insistence that infringers take licenses to the patents they want to use. This will inhibit the ability of many patent owners to negotiate patent licenses, particularly the smaller companies that do not have a great deal of bargaining power other than the potential enforcement of their patents. By vilifying patent owners that take a firm stand against infringement of their property rights, the decision lends credibility to the false but often used argument that patents are just a nuisance and interfere with real innovation. In fact, patents allow truly inventive companies to overcome the obstacles – economic and otherwise – that large incumbent companies are able to employ to protect their markets. Smaller companies already have a difficult time trying to benefit from their inventive efforts; the instant decision will add to the difficulty.

Disputes over the terms and conditions of licenses required by participation in the development of interoperability standards are essentially contract disputes, not antitrust issues. That is particularly true in this case where the principal complainants are original equipment manufacturers (“OEMs”) that stand to benefit from the ruling of the court below. If Apple, Samsung, Huawei and other sellers of smartphones and cellular handsets – some of the largest and most powerful companies in the world – are dissatisfied with the terms on which Appellant is willing to license its extensive portfolio of both standard essential patents (“SEPs”) and other patents that serve to make smartphones and cellular networks more user

friendly, those companies are free to pursue breach of contract theories in litigation or arbitration, as a number of licensees in this and other industries have done. There is no need for the FTC or anyone else to protect these interests through regulation.

We urge this Court to differentiate contract disputes from conduct that actually brings about a lessening of competition.² Contrary to the conclusions of the district judge, the cellular communications industry is one of most intensely competitive and dynamically evolving industries in the world. One need only reflect for a moment on the ubiquitous smartphone with its built in sound system, video screen, computer, camera, worldwide connectivity to other devices and other features that did not exist just 10 or 15 years ago to understand that the forward progress of this industry is not being “monopolized” by Appellant or anyone else. Given the vibrant nature of this industry and the size and sophistication of its participants, one must surely question the need for regulatory or judicial interference in what is essentially a private matter, governed by contract law.

² See, Rill, et al., “Antitrust and FRAND Bargaining: Rejecting the Invitation for Antitrust Overreach into Royalty Disputes,” *Antitrust Magazine*, Fall 2015, p. 72, arguing against the creeping encroachment of antitrust theories into what are in essence contract disputes, most often between entities of considerable power and sophistication. The authors flag the distinct possibility and concern that this intrusion by the courts and the enforcement agencies may chill innovation and deter participation in standards development by innovative companies.

In addition, the decision below, if allowed to stand, is likely to deter significantly the willingness of companies to participate voluntarily in standards development at all, which in turn will work to the detriment of any company, large or small, trying to design and sell products that can operate smoothly in connection with other products, systems or networks, and ultimately to the detriment of the public, both in this country and others. Interoperability standards have long been recognized as procompetitive, because they define interfaces that allow new entrants to design standard-compliant products and services that can compete with entrenched incumbents for participation in systems and networks.³ For this collaborative process of standardizing interfaces to work successfully, however, it is important that all of the significant companies in a given industry participate in

³ *E.g.*, U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007), Chapter 2, p.33;

“Industry standards are widely acknowledged to be one of the engines driving the modern economy. Standards can make products less costly for firms to produce and more valuable to consumers. They can increase innovation, efficiency, and consumer choice; foster public health and safety; and serve as a fundamental building block for international trade. Standards make networks, such as the Internet and wireless telecommunications, more valuable by allowing products to interoperate. The most successful standards are often those that provide timely, widely adopted, and effective solutions to technical problems.”

<https://www.ftc.gov/sites/default/files/documents/reports/antitrust-enforcement-and-intellectual-property-rights-promoting-innovation-and-competition-report.s.department-justice-and-federal-trade-commission/p040101promotinginnovationandcompetitionrpt0704.pdf>

developing the standard, and that they make their intellectual property rights (“IPRs”) available to others in accordance with the policies of the particular standards development organization (“SDO”) that orchestrates their efforts. Otherwise the most creative companies will have incentives to sit on the side lines, where they are not required to acknowledge the existence of or agree to license patents that cover a standard that ultimately may be adopted.

The intellectual property policies of most SDOs, and certainly the ones at issue in this case, are designed to reduce this type of patent-related risk for all entities using the standard. They do this by requiring all participants to agree to license their standard essential patents (“SEPs”) on fair, reasonable and non-discriminatory (“FRAND”) terms, and thereby insure that the need for access to patented technology incorporated into a standard does not preclude participation by potential sellers of any size. Unless all of the major owners of patents that bear on a given product are willing to provide such commitments, the FRAND commitment for the rest of the participants may become meaningless.

Nonparticipation by some patent owners is an even larger problem for small innovative companies (such as the members of USIJ) than for larger incumbents that have the resources to engage in expensive litigation and the capability of negotiating cross-licenses with one another to gain access to essential patents.

This problem of nonparticipation by significant developers of new technology is not purely hypothetical. As noted in Section V., below, the SDO that operates under the auspices of the Institute of Electrical & Electronics Engineers (“IEEE”) has recently discovered that the imposition of restrictions similar to those envisioned by the court below caused many of the most important contributors to an amended Wi-Fi standard to refuse to provide FRAND commitments, with highly disruptive results.

Finally, the findings of the district judge fail to account for the economic reality of the licensing practices that the court held to violate the antitrust laws. The Opinion accords little or no significance to the fact that Appellant owns 140,000 patents and patent applications that cover nearly every aspect of smartphone technology, from the modem chips referred to in the Opinion, to the smartphones and handsets that combine modems with other components, to the manner in which these devices behave in a communications network. The district judge’s often repeated assertion that Appellant “coerced” OEMs into taking patent licenses seeks to twist Appellant’s licensing policy into something to which the court can apply the rubric of antitrust law. This assertion is simply wrong.

The Patent Act provides that “whoever without authority makes, uses, offers to sell, or sells ... or imports ... any patented invention ... infringes the patent.” 35 U.S.C. §271(a). Without a license to authorize its activities, an OEM would infringe

most or all of Appellant's SEPs.⁴ The district court's "finding" that OEMs were "coerced" into taking licenses – without which they could not stay in business – ignores this fundamental and controlling point. OEM's do not have a choice about the need for a license.

What the district judge actually finds objectionable is that Appellant is asking from OEMs more money than she thinks appropriate as a royalty, basing such belief primarily on the self-serving complaints from the OEMs themselves. Even assuming that the district judge was factually correct in this belief, overcharging for a license is not a violation of antitrust law, nor is it a proper use of either regulatory or judicial power to interfere with contractual arrangements established by SDOs. The policies of the SDOs relevant to this appeal require a commitment from companies that participate in developing standards to license their SEPs on FRAND terms, but none of these SDOs wants to be involved in establishing the specific royalties or other terms that might limit the range of negotiations between patent owners and potential

⁴ FTC's "Antitrust Guidelines for the Licensing of Intellectual Property," updated jointly with U.S. Department of Justice in 2017, acknowledge the important role that patents play in the development of new technologies:

"The intellectual property laws provide incentives for innovation and its dissemination and commercialization by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression. In the absence of intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without providing compensation."

(Footnote Cont'd on Following Page)

licenses. The question of what constitutes a FRAND license is left to individual negotiations.⁵ Nor do these SDOs provide mechanisms for resolving differences that inevitably emerge from time to time between participants. These too are left for the parties to resolve on their own.⁶ Our system of patent protection allows patent owners the benefit of a market-based determination of the value of what they have invented. There is no basis for judicially circumscribing that right based on complaints from companies that are more than capable of protecting their own interests.

⁵ The IPR Guidelines from the Telecommunication Industry Association (“TIA”) state at page 2, for example, that TIA “will neither be a party to the discussion of licensing terms and conditions nor will it get involved in the issue of whether proposed licensing terms and conditions are reasonable or non-discriminatory. *These are matters for resolution by the parties, and they are not the proper subject matter for any discussion at a meeting of TIA or any of its committees or working groups.* https://www.tiaonline.org/wp-content/uploads/2018/05/Guidelines_to_the_Intellectual_Property_Rights_Policy_of_TIA_a_companion_document_to_the_IPRP_.pdf (emphasis in the original).

⁶ As also noted in the TIA Guidelines: “[T]he precise terms and conditions are left to the parties, or if the parties fail to agree and dispute the reasonable and nondiscriminatory character of what the licensor offers, the matter is left to the courts.” *Id.* at p. 4.

ARGUMENT

I. The District Judge's Effort To Convert A Contract Dispute Into An Antitrust Case Should Be Overturned.

The primary flaw in the findings of the court below is that this should not be an antitrust case at all. It is in essence a contract dispute over the royalties demanded by Appellant from OEMs that sell smartphones and cellular telephones covered by Appellant's patents. It seems apparent from the Opinion that the FTC and the district judge are attempting to restructure the entire industry through the mechanism of antitrust "findings" having no support in the law. The Opinion does not establish that Appellant has engaged in the types of behavior addressable under the antitrust laws, which are for the protection of the *process* of competition for the benefit of consumers, not the protection of *competitors*.⁷

This distinction is particularly compelling in light of two incontrovertible facts. First, consumers all over the world have enjoyed intense and dynamic competition that is readily apparent to everyone. It is difficult to imagine a more competitive industry than this one over the last decade. If Appellant's licensing practices had actually reduced competition, as the district court concluded,

⁷ *E.g.*, *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (defendant's actions must "harm the competitive process and thereby harm consumers. ... In contrast, harm to one or more competitors will not suffice."); *Brooke Grp. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993) ("antitrust laws were passed for the protection of competition, not competitors").

consumers would not have the available choices, the rapidly falling prices for legacy products, and the constant and accelerating improvements in the quality of new products and services that are available.

Second is the identity of the companies on whose testimony the district judge relied to support her findings – Apple, Samsung, Intel, Huawei and others that stand to benefit most from the district court’s ill-conceived effort. As already noted, this group includes some of the largest and most powerful companies in the world. Of course, they would like to pay lower royalties, because it would add to their already generous profitability.⁸ The antitrust laws, however, are indifferent to the profits of these large companies. If any of them believes that Appellant’s royalty structure is not consistent with its FRAND commitments, that company is free to pursue a contract claim in a state or federal court, as both Apple and Samsung have done in the past.

There is nothing unusual in the need to resolve disputes over licensing terms and royalties in this context. Developing a new standard or defining improvements to an existing standard often requires the invention of new technologies, and the participants in SDOs commonly acquire intellectual property rights in some of these

⁸ Apple’s most recent annual report shows revenues of \$266B and a profit of \$59.5B; the company spent 5.2% of its revenues on R&D, in contrast to Appellant which spent 25%.

new technologies.⁹ To deal with potential conflicts between an innovative company that creates new technologies and those companies wishing to implement the new technologies in products or services, most SDOs require the participants to agree that they will offer licenses on FRAND terms with respect to any patents that would be infringed in implementing the standard. When disagreements arise between the inventor companies and the user companies over how these concepts should be applied, such disputes typically are resolved by negotiation or, failing to arrive at a mutually satisfactory agreement, by arbitration or litigation. Courts have resolved at least two recent and significant contract disputes between patent owners and user companies as to what constitutes a FRAND royalty, one of which was affirmed by this Court in *Microsoft v. Motorola, Inc.*, 795 F.3d 1034 (9th Cir. 2015). In that case, Judge Robart in the Western District of Washington addressed a large number

⁹ An insightful discussion entitled “The Royalty Rate for a Subset of Standard Essential Patents – What Is Reasonable?” (*IP Watchdog*, May 22, 2016 <http://www.ipwatchdog.com/2016/05/22/royalty-rate-standard-essential-patents/id=69045>) describes how the IEEE 802.11 standard for wireless data communications came into being over a 7-year period between 1990 and 1997. First, basic parameters such as data rate, working distance, power requirements and the like had to be agreed upon by dozens of participants. Second, a specification had to be drafted setting forth technical parameters that would achieve the basic parameters. Third, prototypes had to be constructed to prove the design feasibility of the specification. Finally, the specification had to be revised to optimize performance and eliminate ambiguities. Throughout such a process, the individual participants are likely to be working on their own implementation of the specification, with the distinct possibility of creating patentable inventions in the process.

of contested issues in a dispute between Microsoft and Motorola, including a determination of the proper amount of a FRAND royalty, the obtaining of an injunction in Europe by Motorola, and a jury's determination of contract damages apart from the royalty due.¹⁰

II. The District Court Erred in Its Use of Monopoly Pricing As the Basis for Finding Monopolization.

Having a temporary “monopoly” in a rapidly evolving market is not monopolization under Section 2 of the Sherman Act. Read carefully, the district court's legal analysis of monopolization is based primarily on what the court viewed as “excessive royalties.” This is not supportable under U.S. antitrust law. Although a royalty rate that is not fair and reasonable might be a violation of the contractual commitment made by the licensor, it is not monopolization under the Sherman Act. In *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko, LLP*, 540 U.S. 398, 407 (U.S. 2004), the Supreme Court rejected the argument that monopoly pricing is evidence of unlawful behavior, noting that monopoly pricing can in fact be beneficial:

“The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge

¹⁰ See also, *TCL Communications v. Ericsson, Inc.* Dkt. Nos. SACV-14-341 JVS (DFMx) and CV- 15-2370 JVS (DFMx) (C.D.Ca Dec. 21, 2017). In *In re Innovatio IP Ventures LLC Patent Litigation*, M.D.L.Docket No. 2303, 921 F.Supp.2d 903 (N.D. Ill 2013), the district court used a FRAND analysis to assess damages for patent infringement.

monopoly prices – at least for a short period – is what attracts "business acumen" in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct." *Accord, Rambus Incorporated v. Federal Trade Commission*, 522 F.3d 456, 483 (D.C. Cir. 2008) ("high prices and constrained output tend to attract competitors, not to repel them").

Although the district judge claimed to be following the *Trinko* decision, the Opinion is nevertheless peppered throughout with countless references to Appellant's royalty rates and their relationship to Appellant's contribution to the established standards as evidence of monopolization. Exemplary are "Qualcomm Royalty Rates Are Unreasonably High" (Op. p.157); "Qualcomm's Contribution to Standards Do Not Justify Its Unreasonably High Royalty Rates" (Op. p. 165); "Qualcomm's Use of the Handset as the Royalty Base is Inconsistent with Federal Circuit Law" (Op. p.172); "Qualcomm decided that licensing OEMs at the handset level was "humongously more lucrative" (Op. p. 229 and repeated on pp. 123, 130, 134 and 193). It seems clear from this constant refrain about pricing that the district court, far from following antitrust case law, was using high prices as the basis for her finding of anticompetitive conduct.

In an effort to bootstrap the antitrust analysis to fit some of the language in the Supreme Court's decisions in *Trinko* and in *Aspen Ski Company v. Aspen Highlands*, 472 U.S. 585 (1985), the Opinion argues that Appellant's refusal to grant licenses to chip makers parallels the conduct found unlawful in *Aspen*. See, e.g., Op.

p. 44. It does not. In *Aspen*, discontinuation of the previously existing joint venture between the parties left the plaintiff without the ability to provide multi-mountain lift tickets, even if the plaintiff paid full retail price for the ones its customers used at the defendant's lifts.¹¹ By contrast, the district judge here does not identify a single instance in which a competing maker of modem chips lost a sale to a licensed OEM because the chip maker did not have a chip level license from Appellant. Appellant's license to an OEM allows the OEM to purchase components – modem chips and everything else – from whatever vendor(s) it chooses. Put succinctly, there is no need for a license to a competing chip maker because all licensing occurs at the OEM level.

The district judge's use of the patent exhaustion doctrine to analyze the impact of Appellant's refusal to license competing chip makers is creative but upside down. As the district judge views patent exhaustion in the aftermath of *Quanta Computer*,

¹¹ The Supreme Court in *Trinko* described the *Aspen* decision as follows: "Aspen Skiing is at or near the outer boundary of § 2 liability. The Court there found significance in the defendant's decision to cease participation in a cooperative venture. See *id.*, at 608, 610-611. The unilateral termination of a voluntary (and thus presumably profitable) course of dealing suggested a willingness to forsake short-term profits to achieve an anticompetitive end. *Ibid.* Similarly, the defendant's unwillingness to renew the ticket even if compensated at retail price revealed a distinctly anticompetitive bent." 540 U.S. at 409.

This Court's recent stay of the injunction entered by the trial court in this case casts doubt on the applicability of the *Aspen* case to the issues here. Per curiam Order dated August 23, 2019, p. 4.

Inc. v. LG Electronics, 553 U.S. 617 (2008), it is anticompetitive for Appellant to license only at the OEM level and refuse to license at the chip level. Op., p.44. The Opinion points to nothing in the *Quanta* decision to support such a non-sequitur and indeed there is none. Even if construed most unfavorably to the patent owner, *Quanta* provides only that when a licensed OEM sells a handset, the purchaser of the handset and anyone downstream from the purchaser are no longer subject to a suit for patent infringement with respect to the patents incorporated into the item sold.¹²

But exhaustion is not a two-way street. Nothing in *Quanta* or any other exhaustion decision requires a patent owner to license at one particular level for the benefit of purchasers at some other level. The exhaustion doctrine merely establishes that once an item embodying one or more patents is sold, whether by the patent owner or its licensee, those patents as to that individual item are extinguished. One not so subtle implication of *Quanta* is that Appellant was forced to choose

¹² This is even more explicit in the Supreme Court's decision in *Lexmark International, Inc. v. Impression Products, Inc.*, 137 U.S. 1523, 1532 (2017), which the Opinion does not mention:

“[P]atent exhaustion is uniform and automatic. Once a patentee decides to sell – whether on its own or through a licensee – that sale exhausts its patent rights, regardless of any post-sale restrictions the patentee purports to impose, either directly or through a license.”

The decision, however, does not circumscribe the patent owner's ability to create contractual relationships that protect the value of its inventions. *Id.* at 1535.

between modem chip level licensing and putting its OEM licensing program at risk, the latter of which is more profitable and easier to administer. Nothing in the exhaustion doctrine requires Appellant to license chip manufacturers merely to satisfy an OEM's desire to pay lower royalty rates.

Quite apart from the absence of any requirement that Appellant license at the modem chip level, such a license would not begin to include all of the SEPs that an OEM might need to construct a handset and to make the handset perform properly in a cellular network. The sale of a modem chip would exhaust only those patents that were implemented by the chip. This means that OEMs would still require licenses to the unexhausted SEPs, but the mere existence of a chip level license in a post-*Quanta* environment would create commercial confusion and almost certainly would generate belligerent posturing by large OEMs seeking to expand – to the maximum extent possible – the exhaustion overtones of the chip license. Given the obvious risks facing Appellant in the aftermath of *Quanta*, it was clearly a rational business decision for Appellant to fashion its OEM licenses so as to satisfy all of its licensing obligations in one license.¹³ To do otherwise would lead to incessant wrangling between Appellant and its licensees.

¹³ At the time *Quanta* was decided, it had been the law for 150 years that a patent owner could license the manufacture, sale and use of its patent separately. *E.g.*, *Adams v. Burke*, 84 U.S. 453, 456 (1873), “the right to manufacture, the right to sell, and the right to use are each substantive rights, and may be granted or conferred

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III. Insisting That Users Take Licenses to Patents Is Not “Coercion.”

To bootstrap an assertion that Appellant’s prices are too high, the district judge ruled that since Appellant enjoys a large market share in modem chips, Appellant is able to “coerce” OEMs into taking licenses. The Opinion states in at least 12 places that Appellant leverages its modem chips to “coerce” OEMs to take licenses. Exemplary is the statement in Section V.B. (Op. p. 44): “Qualcomm uses its chip monopoly power to coerce OEMs to sign patent license agreements.”

It turns out that what the court below calls “coercion” is actually just a dramatic packaging of refusals by the Appellant to sell modem chips to an OEM that is not licensed. The Opinion does not suggest, nor could it, that OEMs are entitled to infringe Appellant’s patents or that Appellant is not entitled to receive royalties from the use of its patents. Nor does the Opinion deny that from the very beginning of Appellant’s initial entry into the cellular telephone business, it has required OEMs to take licenses to its patents. Appellant has not “changed” its policy and decided to forego short term profits, as the district judge posits in order to shoehorn the facts into the *Aspen* framework. Appellant has always licensed OEMs.

A moment’s reflection reveals the flaw in the district judge’s analysis. If an OEM could not remain in business without infringing Appellant’s patents, it is not

separately by the patentee [through a license].” After *Quanta*, it became unclear whether such separate licensing had the solid approval it previously had.

“coercion” for Appellant to refuse to facilitate infringing uses of such patents. The reality is that the FTC, with support from the court below, is attempting to create a new legal construct in which Appellant (and presumably other patent owners) will be forced to grant licenses at the component level, presumably so that OEMs could then assert that under the most recent exhaustion rulings of the Supreme Court, they no longer need the licenses that they have operated under since they first began to use Appellant’s patents. In this restructured world, innovators would be required to capture the full value of their relevant patents at the component level – which most likely would be challenged as not being a “fair” or “reasonable” royalty – or to forego a large portion of the actual value in their inventions. This *amicus* submits that it is improper for a Federal agency or a Federal judge to try and micromanage an entire industry in this fashion. It is particularly difficult to understand the rationale for allowing these OEMs, some of which are multiples the size of Appellant, to reap a staggering windfall at the expense of the innovators that actually invest large sums in R&D to create the new technologies required for improving existing standards.¹⁴

¹⁴ Appellant’s SEC filings show that in 2018 it invested 25% of its gross revenue in the R&D needed to maintain the dynamic pace of innovation in the cellular communications industry. See, Qualcomm Form 10-K for year ended 9.30.2018, Consolidated Statement of Operations, p. F-4. <https://investor.qualcomm.com/static-files/bde24726-605c-4118-92db-7190e0f58e53> . This exceeds significantly all of the major participants in this

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IV. Reviving Antitrust Defenses to the Enforcement of Patents Will Further Erode the Incentives That Patents Are Intended to Provide.

Quite apart from its potential impact on Appellant and the cellular communications industry, another danger in the ruling of the court below is its potential impact on patent owners seeking to license their patents in the future. The decision below is a bad outcome generally for the development of new technologies, for entrepreneurs that give up comfortable and secure jobs to pursue new ideas, for the investors that have great but not unlimited tolerance for risk, and for the United States as a whole. A significant portion of the mechanism by which patents provide incentives for investment and entrepreneurial activities is one of perception – if inventors do not believe that their patents allow the capture of the market value of their inventions, many will simply focus their attentions elsewhere. The decision below, which would have the effect of destroying billions of dollars’ worth of R&D investment – after the fact – can only discourage future investment by Appellant and others.

From the 1930s until the 1980s, both the U.S. Supreme Court and the antitrust enforcement agencies took a narrow view of patent licensing, with the result that

industry. Apple, as noted above (fn.8), invests about 5% of its revenues in R&D. It is difficult to imagine that Appellant will have either the incentive or the resources to continue its frenetic pace of innovation if the Judgment in this case were allowed to stand.

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patent owners were constantly at risk of running afoul of the antitrust laws, or in some cases just the spirit of the antitrust laws, whenever they attempted to license their patents.¹⁵ The result was predictable in that, over time, entire industries that started in the U.S. – color television, video cassette recorders, and DRAMs to name a few – began to move from the U.S. to other countries, never to return.

A Presidential Commission on Industrial Competitiveness headed by John Young, then CEO of Hewlett Packard, was asked to determine the causes and to propose ways of containing the trend. The Commission's Report, issued in 1985, analyzed this massive migration of technology and industry from the United States to Germany, Japan, Korea, Taiwan and elsewhere. Among the recommendations of the Commission was the restoration of meaningful intellectual property protection:

“Research and development are always risky. If the developers of a new technology cannot be assured of gaining adequate financial benefits from its commercialization, they have few incentives to make the huge investments required. ... Today, the need to protect intellectual property is greater than ever. A wave of commercial counterfeiting, copyright and design infringement, technology pirating, and other erosions of intellectual property rights is seriously weakening America's comparative advantage in innovation.”

¹⁵ The Supreme Court decision in *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942) is exemplary. There the Court held that a lease provision requiring the lessee of a patented machine to purchase salt from the patent owner was patent misuse, rendering the patent unenforceable. The Court was careful to note that the defendant asserting the defense was not required to prove an actual violation of the Sherman Act, nor did it matter whether the defendant itself was even affected by the lease provision. *Id.* at 492.

This earlier era of antitrust was later characterized in a 2003 report of the FTC on patents and innovation as one of “overzealous antitrust enforcement ... lacking a sound economic foundation”:

“[A]ntitrust dominated and patents were disfavored during the 1960s and 70s. ... Overzealous antitrust enforcement culminated in the Department of Justice’s ‘Nine No-Nos,’ a list of nine licensing practices that the Justice Department generally viewed as automatically illegal. Most now believe that antitrust’s ascendancy during this period lacked both a sound economic foundation and a sufficient appreciation of the incentives for innovation that patents and patent licensing can provide.”¹⁶

FTC’s pursuit of its theories here, which also “lack a sound economic foundation and a sufficient appreciation of the incentives for innovation,” and the district judge’s acceptance of those theories, smack of a return to the overzealous application of our antitrust laws at the expense of innovation. This outcome, if affirmed, bodes poorly for our country and its technology leadership throughout the world.

V. The Decision Below Will Have An Adverse and Long-Lasting Impact on the Process of Standardization, Well Beyond This Case.

One of the foundational arguments used by the district judge to buttress her findings is that because patent law damage cases, in addressing reasonable royalties under Federal Circuit law, make an effort to apportion value based on the specific contribution of a particular patent that is infringed, this therefore requires Appellant

¹⁶ FTC Report, “To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy” (2003) at p.9 [quotation marks and footnote citations omitted].

to grant licenses to chip makers. Op. pp. 178. The line of Federal Circuit cases to which the Opinion refers stems from a decision by former Chief Judge Rader of the Federal Circuit, sitting as a trial judge, in *Cornell University v. Hewlett Packard Company*, 609 F.Supp.2d 279 (N.D.N.Y. 2009). There, the judge granted the defendant judgment as a matter of law, reducing a jury award of damages from \$184 million to \$53 million. The patent in question covered an instruction buffer inside a microprocessor used in a computer, where the jury had been allowed to use the sales volume of the computers containing the microprocessors as the royalty base. The ruling has given rise to a number of situations in which a court required use of the “smallest saleable patent practicing unit” as the basis for apportioning the contribution of an infringed patent to a larger system or network. These cases were seized by the district judge in the court below to conclude, “Thus, Qualcomm is not entitled to a royalty based on the entire handset.” Op. at 178.

Once again, we see the court below trying to impose what it presupposes is a reasonable royalty without either the expertise or the information necessary to make that determination. There are significant differences between patent litigation, on the one hand, and a license agreement negotiated between two sophisticated entities well aware of their rights under the rules of an SDO, on the other. Appellant owns 140,000 patents and patent applications that cover numerous aspects of the modem, the incorporation of the modem into a handset, the management of power and other

aspects of handset operation, the connection of the handset to the network, and the interaction between the network and the handset as the handset changes locations. This is a far cry from a single patent on an instruction buffer inside a microprocessor inside a computer.

There is another reason why this Court should be wary of allowing regulatory intrusion into the standards development process – unintended consequences. In 2015, the SDO that operates within the Institute of Electrical & Electronic Engineers, known as “IEEE-SA,” adopted changes to its IPR policy that purported to require, among other things, that negotiations of FRAND royalties be based on the “smallest saleable patent practicing unit.”¹⁷ A substantial contingent of affected IEEE members strongly opposed the changes, arguing that the changes were being forced on the organization by the less innovative but more numerous licensee segment of IEEE at the expense of the more innovative segment that was responsible for the most important of the new technologies and that owned the most important patents. IEEE nevertheless proceeded to adopt the changes.¹⁸

¹⁷ The changes are described more fully in a Business Review Letter dated February 2, 2015, from the Department of Justice to IEEE. <https://www.justice.gov/atr/response-institute-electrical-and-electronics-engineers-incorporated>.

¹⁸ Not surprisingly, some of the same large companies whose complaints to the FTC led to the filing of this case were also the principal drivers of the 2015 IEEE changes in question.

The aftermath has not been a happy one for IEEE and the participants in its SDO. Several of the innovative companies – Qualcomm, Nokia and Ericsson among them – simply refused to give FRAND commitments and otherwise agree to the new IEEE patent policies. Dr. Ron Katznelson, who is a Senior Member of the IEEE and an independent scholar actively involved in their SDO activities, recently published a statistical analysis showing that IEEE experienced a decline of 68% in the submission rate of non-duplicate FRAND licensing assurances for IEEE standards following adoption of the 2015 patent policy, and that there was an increase by a factor of 20 in the submission rate of express refusals to license under the new terms of the 2015 patent policy.¹⁹ Both results showed a statistically significant number of situations in which participants in SDO activities refused to commit to licensing their patents on the basis of the new IPR policy.

Earlier this year, IEEE-SA completed work on the first two new standards to be completed under the new policy. These two new standards – 802.11ah and 802.11ai – were intended to define improvements in the 802.11 Wi-Fi standard in anticipation of the so-called Internet of Things. In March 2019, the American National Standards Institute (“ANSI”) refused to certify these first two standards,

¹⁹ Ron D. Katznelson, “The 2015 IEEE Policy on Standard Essential Patents – The Empirical Record,” Sixth Annual Roundtable on Standard Setting Organizations and Patents,” Northwestern University Center on Law, Business, and Economics (May 17-18, 2018), available at <http://bit.ly/IEEE-LOAs>.

because the express refusals to license essential patent claims under the IEEE patent policy were so numerous. As a result, a major effort by IEEE members, spanning several years of work at a large cost in human effort and millions of dollars, is now in limbo and may have been for naught. This is not a good outcome for anyone, particularly as noted earlier, for small companies and inventors situated similarly to USIJ members who need standards around which to invent new products.

VI. Conclusion.

The Opinion of the court below has enormous potential for harm to the cellular communications industry and to our country's leadership role in that industry. There can be little dispute that Appellant's contribution has been one of the key drivers of American leadership in this industry. Appellant continues to invest a larger portion of its revenues in research and development for the future than any of the other participants in this industry. It would be tragic to allow a Federal agency and a single district judge sitting without a jury to destroy Appellant's incentives to continue inventing and innovating.

As or more important is what the both the agency and the district judge are saying about patents. For 240 years, the U.S. patent system has been one of crown jewels in our country's industrial policy, using market mechanisms to create incentives for visionary people to pursue new horizons and risk tolerant investors to fund these endeavors. Patents level the playing field and allow innovative

companies to benefit from their creativity and perseverance against much larger incumbents that are quick to copy new ideas, once proven. Forcing one of our nation's most productive companies to modify its licensing program and forego fully merited compensation – after the fact – so that a handful of entrenched OEMs can become even more profitable is the wrong message we should be sending.

This Court has already determined that “Qualcomm ... has made the requisite showing that its practice of charging OEMs royalties for its patents on a per-handset basis does not violate the antitrust laws.” USIJ urges the Court to reverse the Judgment below in its entirety and to extend that holding to all of the other groundless contentions asserted by the FTC and the district judge.

Respectfully submitted,

/s/ Robert P. Taylor
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Date: August 30, 2019

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