

Testimony of

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“Standard Essential Patent Disputes and Antitrust Law”

Before the

**Antitrust, Competition Policy and Consumer Rights Subcommittee of
The Senate Committee on the Judiciary**

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Donald J. Rosenberg respectfully submits this testimony to the Senate Judiciary Committee's Subcommittee on Antitrust, Competition Policy and Consumer Rights (the "Subcommittee") on behalf of Qualcomm Incorporated ("Qualcomm") for its hearing.

I. SUMMARY

As a leading innovator and implementer of standardized technologies in the telecommunications field, and as a longstanding participant in various standards-setting organizations ("SSOs"), Qualcomm Incorporated ("Qualcomm") is well qualified to comment on the competitive benefits of standards-setting. For the reasons stated below, Qualcomm respectfully submits to the Subcommittee that consensus-driven standards-setting has proven immensely successful, as demonstrated by the wireless communications industry, and should not be altered or overridden.

The wireless communications industry, even more so than other high-technology industries, relies heavily on industry-wide standards that ensure interoperability between wireless devices (*e.g.*, cell phones, laptops, tablets) and networks. The standards-setting process more generally brings many procompetitive benefits, including interoperability, economies of scale, and increased economic efficiency.

These standards are developed through a collaborative and consensus-driven process that balances the varied interests of industry participants. The process and trade-offs involved in standards-setting ensure that those that contribute technologies to standards are adequately rewarded for their technical contributions, while ensuring that all standards implementers can receive the licenses necessary for them to practice the standard and have access to any technology incorporated therein.

The experience of the wireless communications industry confirms the procompetitive objectives of standards-setting, and their realization in practice. The wireless communications industry is among the most innovative and dynamic industries ever. New devices are continually introduced in the market in rapid succession, with ever-increasing functionality, based upon expanding technological capabilities and performance, yet at lower cost. New entrants appear frequently, from all parts of the globe. And the claims of "hold up" that one regularly hears from companies that have

not contributed significantly to the standards-based foundation of the industry are not supported by evidence.

For these reasons, there is no reason for legislative action to disturb the careful balance already extant in the industry, and, in fact, legislative action in this area risks unintended consequences that could be damaging to the inventive spirit that has long set the United States apart from many other countries. Both patent law and antitrust law are designed to promote competition; a statutory or regulatory change to the scope or substance of contractually binding commitments to license essential patents on “fair, reasonable, and non-discriminatory” (“FRAND”) terms, in the absence of convincing evidence of harm to competition, is unwarranted under either of these laws, could disrupt the balance between them, and could lead to a harmful decrease in incentives to innovate.

II. STATEMENT OF INTEREST

Qualcomm was founded in San Diego, California, in July 1985 as a small start-up, by a group of engineers seeking to adapt for commercial applications a promising wireless technology, CDMA, that they believed could change for the better the lives of consumers. Specifically, when Qualcomm was founded, limits on the capacity of wireless spectrum rendered wireless service unaffordable for most, and plagued the performance of users able to afford it. Qualcomm’s founders believed these limits could be overcome through the development of sophisticated technical solutions. But the challenges were great. A physics professor at Stanford University famously stated that Qualcomm’s vision for CDMA “defied the laws of physics”. Yet the patent system allowed Qualcomm to raise the capital for the necessary research and development (“R&D”). Specifically, Qualcomm and its investors knew that if Qualcomm was successful, the patent system would reward them with market-based compensation for the risks they were taking in investing labor and capital to develop a promising yet complicated technology.

As its founders had hoped, Qualcomm’s patented innovations greatly expanded the capacity of wireless spectrum, radically reducing unit costs—and hence prices—for wireless service, equipment and devices such as phones. It is no coincidence that the explosion in wireless service accompanied Qualcomm’s innovations.

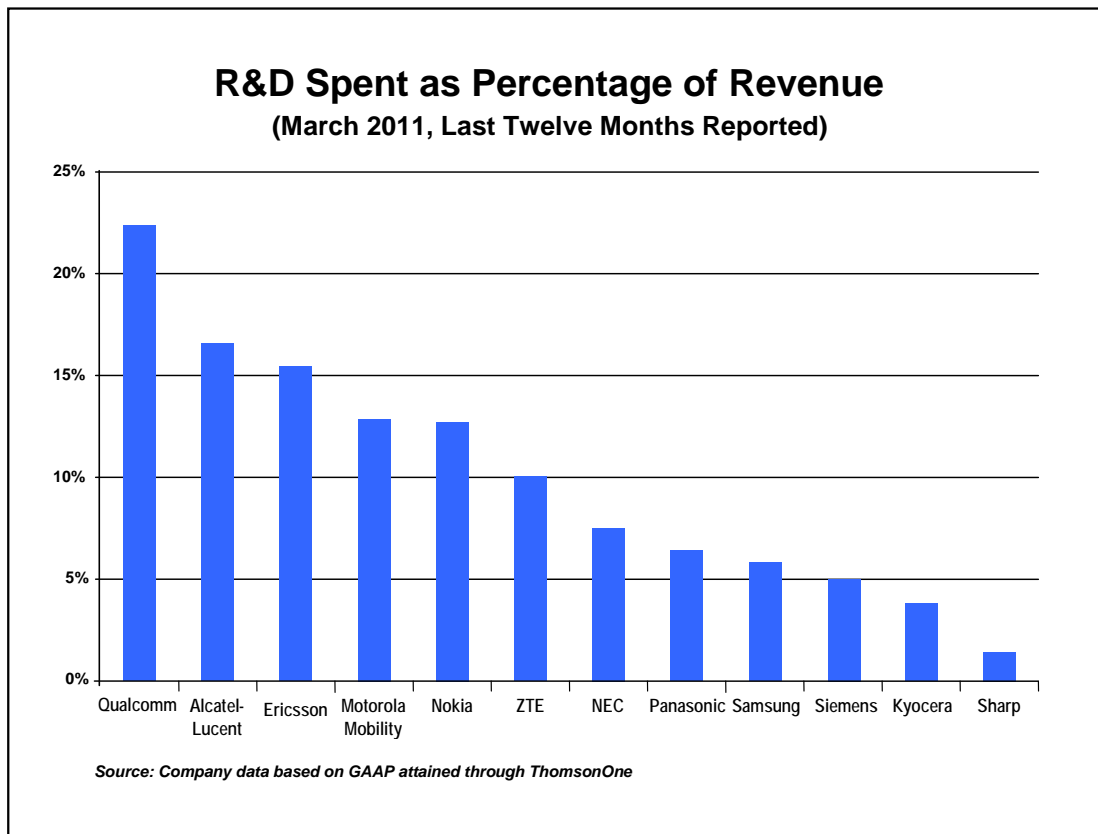
Qualcomm has not stopped innovating. Businesses and consumers have continually demanded even greater performance and capabilities in their wireless service and devices, and placed even greater demands on wireless spectrum. In the several decades since it first enabled the commercialization of CDMA, Qualcomm has contributed a wealth of technology to every stage of the successive Second Generation (“2G”), Third Generation (“3G”), and Fourth Generation Long Term Evolution (“4G LTE”) wireless communications technologies. Again, the patent system allowed Qualcomm to raise the capital necessary to fund the R&D making these contributions possible. Qualcomm licenses essentially its entire portfolio to more than 240 licensees worldwide—virtually every major manufacturer of 3G and 4G LTE wireless devices.

Qualcomm is also a leading developer and supplier of semiconductors (*i.e.*, chips) to manufacturers of wireless devices. Year after year, Qualcomm’s chips have grown more powerful and enabled new features; they currently serve as the engine that powers many of today’s most sophisticated and sought-after mobile devices.

Because industry standards are prevalent for wireless communications protocols, as well as for cellular devices, infrastructure equipment and other communications products, Qualcomm is a longstanding active participant in numerous SSOs, including the European Telecommunication Standards Institute (“ETSI”), the Institute of Electrical and Electronics Engineers (“IEEE”), the Telecommunications Industry Association (“TIA”), the Alliance for Telecommunications Industry Solutions (“ATIS”), and others. Qualcomm has actively participated over the years in deliberations within these and other SSOs concerning policies regarding FRAND commitments and licensing of standards-essential patents (“SEPs”).

Qualcomm’s investment in the development of successive generations of groundbreaking technologies is predicated on the robust protections inventors enjoy under the patent system. To stay at the forefront of innovation, Qualcomm makes enormous financial investments in fundamental and risky R&D. Qualcomm employs more than 20,000 engineers, and invested \$3.9 billion in R&D in 2012 alone—rising from \$3.0 billion in

2011 and \$2.5 billion in 2010. As the chart below illustrates, historically Qualcomm's investment in R&D has far outstripped that of other major industry participants:



Undertaking such large and continuing investment in R&D means taking substantial risks. Many technologies do not pan out.¹ Some technologies are innovative, but cannot be monetized and do not bring in revenue. Other innovations promise revenue that can only be realized far into the future. These basic risks inherent in R&D are compounded when the technologies are contributed to an industry standard (particularly when there is no competing standard, as is the case with the 4G LTE standard), because not only must the R&D result in a technology that works as a technical matter, it must also be “the technology” selected for inclusion in the standard by all relevant industry participants.

Qualcomm's business model relies on managing the risk that accompanies its substantial investments in R&D. In no small part, Qualcomm's ability to sustain its pace of innovation is due to the revenue stream it earns from licensing those technologies that have panned out. In most instances Qualcomm's licensees receive rights to Qualcomm's

entire portfolio of inventions essential to implement a standard—present and future—and, with a few exclusions, its entire current portfolio of non-essential patents in return for a single royalty fee. A large proportion of this revenue stream—nearly half of all Qualcomm’s licensing revenue—is recirculated into more R&D. Qualcomm could not rely on revenues sufficient to recoup its R&D expenditures absent the protections of the patent laws. For example, Qualcomm’s valuable portfolio of patents essential or related to CDMA technology allowed Qualcomm to earn substantial licensing revenue from the commercial success of this technology. Without that revenue, Qualcomm quite possibly would not have been able to develop subsequent inventions that are now at the heart of modern 3G and 4G LTE wireless standards. Conversely, *because* the patent laws allowed Qualcomm to reap that revenue, Qualcomm is looking past 4G LTE and working on the *next* generation of wireless technologies. Qualcomm’s experience is a perfect example of why our founding fathers viewed incentives and protections for intellectual property as so important that they included this directive in the first Article of our Constitution: “to promote the progress of science and useful arts”, Congress shall have the power to provide patent protection.²

At the same time, because Qualcomm is also a supplier of chips for incorporation into devices that implement standardized technologies, Qualcomm’s business success depends not only on its ability to monetize its own technologies, but also on access to others’ patented technologies—including SEPs and non-SEPs. Qualcomm is therefore particularly well situated to provide balanced commentary on the issues before the Subcommittee. Qualcomm appreciates the Subcommittee’s consideration of these comments.

III. STANDARDS ARE THE FOUNDATION OF CUTTING-EDGE INDUSTRIES.

A. Standards-Setting is a Collaborative, Technical, and Consensus-Based Process.

Standards-setting organizations bring together a wide variety of participants from every part of the industry, and from all across the world. For example, the Third Generation Partnership Project (“3GPP”) has more than 200 members, and ETSI has more than 700

hundred members.³ These range from manufacturers to consultants to network operators to small and medium-sized businesses to universities and more.⁴ A huge range of interests are represented; members are both large and small, some focusing on a broad segment of the industry while others focus on highly specialized niches.

The work of these organizations is determined by the members themselves, and they generally operate by consensus. SSOs, and the various sub-groups through which they operate, hold regular meetings that are attended by engineers. During these meetings, the engineers discuss and submit reports on the technical merits of the technologies under consideration; the point in doing so is to ensure that every submission and every technology is subject to peer review, so that the standard ultimately adopted will be technically sound and will enjoy broad industry support. Most of these participants never contribute technology to the standard, but instead use the adopted standard, and further iterations thereof, as many standards continuously evolve.

Industry support is critically important. A standard's success in the wireless telecommunications industry depends on its ultimate adoption by the industry. Industry adoption, in turn, depends critically on the value of the standard, particularly as compared to other standards or proprietary solutions. To enable the creation of successful standards, an SSO's membership must therefore implement rules that balance the many varying interests of its members by: (i) attracting participation in the work of the SSO by players at every level of value creation to ensure that the most technically advanced solutions are contributed; (ii) ensuring that standardized technologies will be available to implementers on reasonable terms; and (iii) allowing a return on investment sufficient to compensate inventors and their investors for undertaking costly and risky R&D that will yield cutting-edge technologies.

As just one example⁵, the rules of 3GPP and ETSI do just that. The balance struck in the ETSI IPR policy offers an important example of how a successful SSO reconciles the interests of its stakeholders and continues to attract investment and participation by inventors of valuable technologies in successive rounds of standardization. The ETSI IPR Policy states *explicitly* that a “balance” between “the needs of standardization for

public use” and “the rights of the owners of IPRs”⁶ is precisely what its membership agreed to in formulating an IPR policy. To obtain this balance, the main objectives of this Policy are stated as:

- “creat[ing] STANDARDS and TECHNICAL SPECIFICATIONS that are based on solutions which best meet [] technical objectives”;⁷
- “reduc[ing] the risk . . . that investment in the preparation, adoption and application of STANDARDS could be wasted as a result of an ESSENTIAL IPR . . . being unavailable”;⁸ and
- ensuring that IPR holders are “adequately and fairly rewarded for the use of their IPRs” included in standards.⁹

The ETSI IPR Policy, like the IPR policies of other SSOs, also defines the fundamental bargain patent-holders accept in exchange for consideration of their technology for standardization, and subsequently for the inclusion of their technology in its standards. At its most basic level, this involves an obligation by patent-holders participating in 3GPP and ETSI to disclose the existence of any intellectual property rights that they are aware “might be essential” to a proposed standard,¹⁰ and to make actually essential IPR available to all who desire to make or sell standard-compliant products and services.¹¹ This simple bargain, discussed further below, has been at the heart of successive—and successful—generations of standards used in the cellular industry and enabled numerous stakeholders to develop and commercialize increasingly sophisticated wireless products that are highly valued by customers.

Finally, one important result of SSOs’ structure and processes is that reputation matters greatly in standards-setting. The need to build and maintain consensus, combined with the regularity of the meetings, ensures that no member can afford to act obstinately, impeding progress through frivolous objections. Nor can any member afford to “burn bridges” with other companies, as the process is a repeating one, and members will work together in the future as standards evolve. In short, reasonableness is the currency of standards-setting, and without it a member can have no impact.¹² This moderating effect also ensures that no member can expect to exert undue leverage.

B. The Centerpiece of the Standards-Setting Process is the FRAND Contract.

All members of SSOs recognize that once a standard is set, access to the essential technologies may be necessary to implement the standard. All major SSOs in the industry have IPR policies and procedures designed to facilitate the availability of essential patents through FRAND commitments. This is not to say that the IPR policies and procedures of all SSOs are the same. Each SSO establishes its own policies and procedures, which may result in different FRAND commitments, as explained more fully below.

A common requirement for these SSOs is that a member provide notice to all other members of any IPR that it owns that may be essential to practicing a standard, and also make a commitment to license any patents that actually are essential on fair, reasonable, and non-discriminatory terms—the FRAND commitment. ETSI, for example, requires its members to declare publicly their ownership of any IPR that “might be essential”,¹³ given that whether IPR actually is essential can only be determined after the standard is finally adopted, and that a member making the declaration inform the membership of whether that member will commit to licensing any patents that actually are essential on fair, reasonable, and non-discriminatory terms.¹⁴ Otherwise, the SSO may seek to design the standard around such member’s IPR.

By now it is widely accepted that a FRAND commitment is a contractual commitment between the SSO, on the one hand, and the patentee, on the other, to which standards implementers are third-party beneficiaries.¹⁵ The SEP-holder agrees to make licenses available to those who wish to manufacture or sell standards-compliant devices on terms consistent with the FRAND commitment. This is a significant concession, in which the patent owner gives up its legal right to be the sole implementer of a patented technology. It does so only with the understanding that this concession is limited to licensees willing to accept FRAND terms, who in turn enjoy the benefits of being able to obtain a license and practice the standard free from claims of infringement.

It naturally follows from the fact that a FRAND commitment is a contract that the meaning of each SSO's FRAND commitment should be found by applying the basic law of contract interpretation. This means first looking to the language of the agreement—the SSO's IPR Policy and the FRAND commitment. Where ambiguity exists, the next step is to look at the intent of the parties, as shown through the history of the deliberations and negotiations leading to the agreement. Efforts to legislatively dictate the terms of SEP licensing can give rise to unintended consequences—perhaps most regrettably, the loss of the voluntary, contractual nature of IP contributions and the benefits they can bring to consumers today and in the future. The importance of a voluntary, negotiated approach to technology standards cannot be overstated; indeed, as described below, such regimes are efficient, more nimble, and able to adapt more quickly to fast-changing technologies than any legislative alternative.

With respect to the details of each individual licensing agreement, the language of the leading SSOs' IPR Policies is quite clear: once a FRAND commitment is made, licensing is left to bilateral negotiations between the parties, with judicial enforcement of the commitment available as a last resort in the event, historically rare, that negotiations are unsuccessful. The ETSI Guide on Intellectual Property Rights, for example, provides that “Specific licensing terms and negotiations are commercial issues between the companies and shall not be addressed within ETSI”.¹⁶ The same is true of the ITU.¹⁷ This is the result of a considered effort on the part of these SSOs, which recognize that although licenses to SEPs must be meaningfully available, it would not be desirable for the SSO to attempt to regulate the agreements that are reached by the parties, especially given the great variation in parties, uses, and technologies at issue in any contemplated license; rather, market-based negotiations and licenses are preferable.

But that is not to imply that potential licensees have less leverage in negotiating SEP licenses subject to FRAND commitments. In fact, licensees have substantial leverage. Any licensee who believes that a patentee is not engaging in negotiations consistent with the patentee's FRAND commitment can apply to a court to enforce the FRAND commitment.¹⁸ Unlike a patent owner, a potential licensee can bring an action in contract to enforce a FRAND commitment, whereas an SEP owner only has recourse to a patent

infringement suit or ITC action against an infringer unwilling to accept a license on FRAND terms. Even so, if an SEP-holder makes a request for injunctive relief from a court or exclusionary relief from the ITC, U.S. courts and the ITC will not rule on that request until they have adjudicated the licensee's FRAND defense. And even if the court finds that a FRAND offer was made, the court must *also* consider all of the traditional factors relating to injunctive relief, including the "public interest".¹⁹ Similarly, in an action for an exclusion order, according to the direction of Congress, the ITC must consider numerous factors relating to competition and the public interest before granting exclusionary relief.²⁰ These are high bars, leaving only truly "unwilling licensees" subject to injunctive or exclusionary relief. In short, there is no reason to believe that SEP owners have undue leverage over potential licensees in license negotiations, or that FRAND commitments do not achieve the balance in interests between SEP owners and potential licensees that they were designed to address. In fact, the enormous number of FRAND licenses that have been negotiated over the several decades in which FRAND commitments have been made underscores the success of the existing FRAND regime and that "FRAND is not broken".

C. Standards-Setting is Procompetitive.

The structure and processes of standards-setting are designed to involve give and take by industry participants in order to reach a consensus, which benefits the industry and competition alike. The procompetitive potential of standardization activity is obvious in practice and otherwise well understood as a matter of economic theory and legal principle. For example, as a means of protecting the beneficial, procompetitive potential of standardization activity, Congress enacted legislation in 2004 limiting the risk of antitrust liability for SSOs to ensure that such risk did not unduly chill their important work.²¹ The benefits of standardization have also been recognized by U.S. courts, which have noted that SSOs play a role in "facilitating economies of scale in the market for complementary goods, reducing consumer search costs, and increasing economic efficiency".²² Commentators have likewise recognized the benefits that flow from the almost universal decisions of SSOs to leave licensing negotiations to the parties to the license. Chief among them is that it avoids the costs to society from litigation, and it is

also often value-creating, as negotiations reveal new and creative ways for the parties to cooperate.²³

IV. STANDARDS-SETTING HAS AN OUTSTANDING RECORD OF REAL-WORLD SUCCESS, AND THERE IS NO REASON TO ALTER THE POLICIES AND PROCESSES RESPONSIBLE FOR THIS SUCCESS.

A. Standardization Has Facilitated Rapid Innovation in the Wireless Communications Industry.

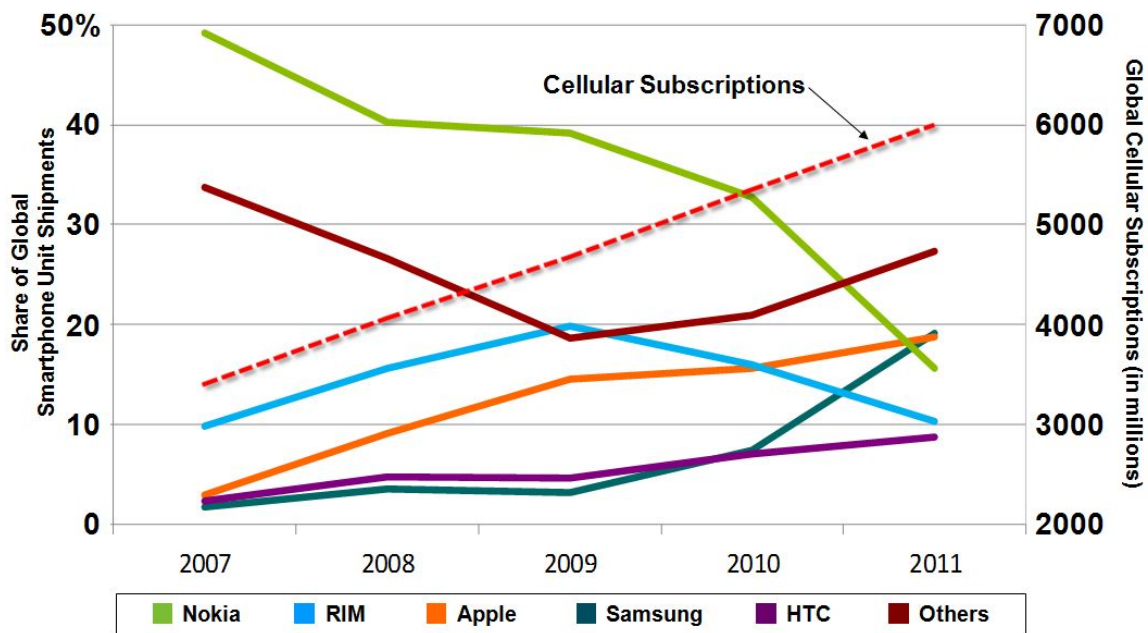
The wireless communications industry is a powerful real-world case study on the positive impact of standards-setting. The technologies relied on by the cellular industry have evolved at a breathtaking pace over the past twenty years. The first 2G cellular standards allowed voice-only communications. These were followed by the add-on of high-speed data capability introduced by 3G standards, which placed email, streaming video, and app-enabled functionalities in the palms of users' hands. Now the industry is in the midst of another giant leap forward, propelled by the ten-fold increase in data transfer speeds promised by the 4G LTE networks currently being rolled out across the world.

Unsurprisingly, every indicator relating to the wireless industry shows explosive growth: network carriers offer ever growing and faster bandwidth; services and content unimaginable a few years ago are now widespread on wireless devices, from streaming video and audio, to location-based services, to apps capable of seemingly limitless functionality. In fact, the number of wireless subscriber connections (*i.e.*, number of active devices) in the United States has just surpassed the population, as increasing numbers of people use multiple cellular-connected devices,²⁴ a remarkable sign of growth that shows no sign of abating. With the significant demand for data, continued growth is expected, as is demand for further R&D to find technical solutions to address this demand.

The basic practices of standardization have remained essentially unchanged throughout the progression from 2G to the present, while the number of wireless industry players has grown dramatically and competition has reached intense levels. On the network side, large national carriers and smaller regional players compete in offering their customers 3G and 4G LTE services and the technologies and functionalities enabled by them. On

the wireless-device side, established device manufacturers—some of whom have been active in wireless since its infancy—have been challenged by disruptive new entrants, who correctly identified an opportunity for commercial success as 2G became 3G and then 4G LTE. The growth and competitive characteristics of the wireless communications industry is vividly illustrated in the table below, which shows that no position in the industry is safe:

Global Shares of Leading Smartphone Industry Participants and Global Cellular Subscribers



Sources: Bloomberg Finance LP and ITU Statistics (<http://www.itu.int/ict/statistics>)

The health of the wireless communications industry and the vitality of the standards enabling it have never been stronger. In Qualcomm’s experience, it is the longstanding practices of SSOs—backstopped by robust intellectual property rights—that have fostered successive rounds of evolution in wireless communications, transforming it from a luxury accessible only to a select few to an affordable and ubiquitous aspect of everyday life, enjoyed by more than 6 billion subscribers (and more than 1 billion smartphone users) worldwide. Notable among these industry practices is the prevalence of FRAND-based licensing, which supplies *the* mechanism through which industry participants have gained and are assured access to standardized technology. FRAND

licensing is a fundamental link in the chain connecting innovation with standardization and implementation. In sum, claims that FRAND licensing “is broken” and in need of substantial change simply ignore the real-world record, and are widely driven by narrow and short-term economic interests of those who wish to free-ride on the investment in technology contributed by owners of SEPs.

B. Concerns of “Hold Up” are Unfounded.

Notwithstanding the tremendous success of the wireless communications industry, the Committee will no doubt hear that one byproduct of standardization is “hold up”—or perhaps the Committee will hear yet more vaguely about the “*threat*” of “hold up”. The claim here is that after a standard is adopted, SEP owners will extract unfair and unreasonable royalties that they could not have obtained pre-standardization. In short, the claim is one of “excessive bargaining power” stemming from the fact that anyone wanting to make a standardized product *must* practice SEPs and obtain licenses to those SEPs.

Although “hold up” might be a catchy phrase, this claim does not withstand examination. All of the available evidence is that claims of “hold up” are baseless. Putting aside the fact that, as described above, the wireless communications industry is healthy, highly innovative, and highly competitive, SSOs themselves consistently report that they have experienced no problems with “hold up”.²⁵ Academics also have criticized the hold-up theory as simplistic and have identified free-market mechanisms that may explain why real-world examples of hold-up by SEP-owners are never found, including pre-standardization knowledge of licensing terms, pre-standardization licensing negotiations, and reputational constraints discouraging short-term opportunistic behavior.²⁶ Not surprisingly, then, when put on the stand to testify about hold-up theory in the recent FRAND trial between Microsoft (who pursued claims of hold-up) and Motorola in the Western District of Washington, even Microsoft’s experts could not identify a single license that had been affected by hold-up, and instead they admitted that the existence of hold-up by SEP-owners in the real world “is an open question”.²⁷ Indeed, no proponent of hold-up theory has identified a single instance in which IPR has defeated or delayed the adoption or implementation of a standard.

Beyond this, there is no indication that IPR costs are impeding industry success, harming competition or consumer welfare. In the wireless communications industry, in fact, it is quite the opposite: the functionality and features of handsets have grown significantly over time while prices generally have remained stable or declined and the industry has become more diverse and innovative, both in terms of participants and technologies.²⁸ And during all of this, vast numbers of licenses to SEPs have been negotiated and entered into, every one of which brings with it a healthy dose of “patent peace”.²⁹

Given the emerging consensus that there is no “hold up” problem in the intensely competitive cellular industry, at some point, claims of “hold up” will have to stop.³⁰ Until then, they should simply be ignored.

C. Voluntary Industry Commitments Should Not be Disrupted.

The Committee may also hear that the content of FRAND commitments needs to be “clarified”. In particular, the Committee may hear that changes are needed with respect to the availability of injunctions (or exclusion orders from the ITC) on SEPs. Typically these changes are urged as “necessary” because of the illusory “hold up” phenomenon described above. But putting aside the non-existence of any documented hold-up problem, there are several additional reasons why these calls should be rejected.

As a starting point, it is important to note that the meaning of FRAND cannot be reduced to any single, unitary rule or set of terms. Nothing about licensing is “one size fits all”; every negotiation involves the consideration of many different factors, not the least of which is the overall strength and value of the portfolio(s) at issue, and also many different ways of exchanging—and indeed *creating*—value, including but not limited to royalty rates, cross-licenses, fixed or lump-sum payments, joint development or marketing arrangements, and termination rights. Commonly, freely negotiated license agreements are long, complex, and multi-faceted. The flexible nature of the FRAND commitment is its strength.³¹ Indeed, the Department of Justice and U.S. Patent and Trademark Office have recognized as much by stating that “the United States continues to encourage systems that support voluntary F/RAND licensing—both domestically and abroad—rather than the imposition of one-size-fits-all mandates for royalty-free or below-market

licensing, which would undermine the effectiveness of the standardization process and incentives for innovation”.³²

This is the context within which the debate about the availability of injunctive or exclusionary relief should be seen. Looking more specifically at the argument that a FRAND commitment waives all rights to an injunction, it is clear that this argument has no support. There is no basis for this argument in the text of the ETSI or ITU IPR Policies and Licensing Declarations—or in the text of any other IPR Policies and Declarations of which we are aware (which form the contract between the SSO and the licensor as to the FRAND commitment). In addition, the history of the ETSI IPR Policy is well documented, and it shows that the ETSI membership expressly *rejected* a proposed categorical waiver of injunctive relief. Language providing for a waiver of all rights to injunctive relief was debated and briefly included in an IPR policy adopted in 1993.³³ Yet when the current policy was adopted in 1994, that provision was *removed*.³⁴ The *only* reasonable inference from this sequence is that the ETSI membership turned their minds to the question of waiver of injunctions and affirmatively decided to *exclude* any such waiver from the content of the FRAND commitment. To “force fit” such a waiver on the members and SEP-owners of ETSI or any SSO would quite simply be unfair, and would ignore the fact that SSO members are debating the conditions upon which injunctions are available under their respective IPR Policies even as this testimony is being made.³⁵

A “waiver of injunctions” rule also would not make sense as a matter of public policy. Altering the backdrop availability of ordinary patent remedies against “unwilling licensees” (*e.g.*, entities that have refused to commit to take a license that has already been adjudicated to be FRAND) would devalue SEPs by encouraging infringement and obstinate refusals to pay royalties by making litigation preferable to privately negotiated licenses. This not only would lead to more, not less, litigation, but also would *discourage* investment in technologies related to standardization.³⁶

Not surprisingly, courts³⁷, the ITC,³⁸ and other executive entities, such as the Department of Justice and U.S. Patent and Trademark Office,³⁹ are rejecting the argument that a

FRAND commitment waives all rights to an injunction or exclusion order, acknowledging the bad incentives that would be created by such a rule.⁴⁰ There is no need for the Committee to disrupt this growing consensus. Indeed, given that patent law and antitrust law are both enacted for the purpose of promoting competition, it would be particularly unwise to take action based on the antitrust laws regarding the exercise of patent rights in the absence of any evidence of competitive harm.

V. CONCLUSION

The tremendous success of the wireless communications industry shows that SSOs' IPR Policies are working and neither antitrust intervention nor new legislation is warranted. FRAND commitments are having their desired effect. Licenses are available on FRAND terms to industry participants, through private negotiations that promote patent peace, and the vast majority of industry participants enter into needed licenses voluntarily. A few, unfortunately, have refused to enter into and pay for needed licenses, instead hoping to persuade courts, regulators, or legislators to grant them the license rights they need at costs that no one could seriously contend provide the compensation necessary to ensure continued investment in R&D to current and future standards. Lowering costs in the short term is an understandable motive, but it is bad policy. Intellectual innovation is so important to this nation that its encouragement and protection is embodied in our Constitution, and yet there is a very high risk that well-intentioned but misplaced legislative intervention will actually stifle that innovation. On the other hand, the FRAND licensing system, as it currently stands, established by industry participants through SSOs, has a proven record of motivating investment in R&D, while delivering ever-better technology to ever-increasing numbers of consumers at ever-decreasing prices.

In light of this, Congress should take several steps to ensure continued competition and innovation. *First*, Congress should continue to promote a strong and balanced system of patent rights, including by signaling to foreign regulators, particularly in emerging markets, that U.S. patent laws will continue to serve as the gold standard for the rest of the world, and that the U.S. will not stand by as foreign regulators seek to devalue U.S. patents. *Second*, Congress should take no action to disrupt or overturn SSO policies that

preserve the freedom to negotiate enforceable licenses on market-driven terms, including by recognizing the historic role of bilateral licensing and voluntary, consensus-based standards in driving competition and innovation. *Third*, Congress should endorse and encourage adherence to the policy statement issued by the DOJ and USPTO on SEPs and remedies.

At the same time, Congress should refrain from adopting any laws or policies that will have the unintended, but real, consequence of devaluing American patents and American technology, including by foreign regulators. Qualcomm believes that balanced hearings of the type now being conducted by the Committee provide a helpful forum to discuss these important issues, especially because so many uninformed and unsubstantiated claims of patent abuse have been raised, but caution is warranted to avoid chilling and disincentivizing innovation. Given the success of the cellular industry, SSOs and courts should be left to appropriately address, as they have, the relevant issues, without legislation.

¹ Sony's BetaMax technology, which for a time competed with VHS but ultimately lost favor, is the most obvious example of a technology in which substantial investment was made, but which did not yield a substantial return on that investment. Another example is AT&T's Videophone technology.

² U.S. Const., art. I, § 8, cl. 8.

³ ETSI is the SSO that developed the 2G GSM standards. After these standards were developed, 3GPP was formed to create global specifications for future generations of standards, including 3G and 4G LTE specifications, and ETSI is now considered an Organizational Partner of 3GPP. In this role ETSI adapts 3GPP specifications into standards for use in Europe, while other Organizational Partners adapt 3GPP specifications into standards for use in other parts of the world.

⁴ See ETSI website, Current Members, *available at* www.etsi.org/membership/current-members.

⁵ See ETSI Rules of Procedure, 20 March 2013, Annex 6, ETSI Intellectual Property Rights Policy [hereinafter "ETSI IPR Policy"], www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf. Because 3GPP is related to ETSI, but was created after ETSI, *see supra* note 2, 3GPP uses the rules and IPR Policy of ETSI.

⁶ *Id.* at § 3.1.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.* at § 3.2.

¹⁰ *Id.* at §§ 4.1–4.3.

¹¹ *Id.* at § 6.1.

¹² See Roger G. Brooks, *Patent “Hold-Up,” Standards-Setting Organizations, and the FTC’s Campaign Against Innovators*, 39 AIPLA Q.J. 435, 454, 462 (2011).

¹³ ETSI IPR Policy § 4.1 (“[A] MEMBER submitting a technical proposal for a STANDARD or TECHNICAL SPECIFICATION shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER’s IPR which might be ESSENTIAL if that proposal is adopted.”).

¹⁴ See *id.* at Appendix A (“[T]he Declarant hereby irrevocably declares that . . . it and its AFFILIATES are prepared to grant irrevocable licenses under its/their IPR(s) on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD(S), TECHNICAL SPECIFICATION(S), or the ETSI Project(s), as identified above, *to the extent that the IPR(s) are or become, and remain ESSENTIAL to practice that/those STANDARD(S) or TECHNICAL SPECIFICATION(S).* . . .” (emphasis added)) (IPR Licensing Declaration forms).

¹⁵ See, e.g., *Microsoft Corp. v. Motorola, Inc.*, 854 F. Supp. 2d 993, 999 (W.D. Wash. 2012) (holding that “through Motorola’s letters to both the IEEE and ITU, Motorola has entered into binding contractual commitments to license its essential patents on RAND terms”); *Apple, Inc. v. Motorola Mobility, Inc.*, No. 11-cv-178, 2012 WL 3289835, at *19 (W.D. Wis. Aug. 10, 2012) (holding that “Motorola’s assurances that it would license its essential patents on fair, reasonable and nondiscriminatory terms constitute contractual agreements”); *Research in Motion Ltd. v. Motorola, Inc.*, 644 F. Supp. 2d 788, 797 (N.D. Tex. 2008) (declining to dismiss breach of contract claims based on alleged broken promise to license on FRAND terms); *Ericsson Inc. v. Samsung Elecs. Co., Ltd.*, No. 2:06-CV-63, 2007 WL 1202728, at *2-3 (E.D. Tex. Apr. 20, 2007) (recognizing that a dispute on FRAND terms is a contractual dispute and separate from questions of patent law).

¹⁶ See ETSI Guide on Intellectual Property Rights, § 4.1, 30 November 2011, www.etsi.org/images/files/IPR/etsi-guide-on-ipr.pdf. This Guide “is intended to help ETSI Members and any other party involved in ETSI’s standardization activities . . . to understand and implement the Institute’s IPR Policy”. *Id.* at Foreword.

¹⁷ The ITU Common Patent Policy states: “The detailed arrangements arising from [essential] patents (licensing, royalties, etc.) are left to the parties concerned, as these arrangements might differ from case to case.” Common Patent Policy for ITU-T/ITU-R/ISO/IEC, www.itu.int/en/ITU-T/ipr/Pages/policy.aspx; see also *id.* at §§ 2.1, 2.2 (stating that licensing “negotiations are left to the parties concerned and are performed outside ITU-T/ITU-R/ISO/IEC”). The ITU’s Guidelines for Implementation of the Common Patent Policy go further: the ITU “should not be involved in evaluating patent relevance or essentiality . . . , interfere with licensing negotiations, or engage in settling disputes on Patents; this should be left—as in the past—to the parties concerned.” ITU Guidelines for Implementation of the Common Patent Policy, § 1 (stating the “Purpose” of the Guidelines) (emphasis added), available at www.itu.int/dms_pub/itu-t/oth/04/04/T04040000010003PDFE.pdf.

¹⁸ See, e.g., *Microsoft Corp.*, 854 F. Supp. 2d 993 (W.D. Wash. 2012).

¹⁹ See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

²⁰ See 19 U.S.C. § 1337(d) (providing that, before granting exclusionary relief against an infringing product, the ITC should consider “the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers”); *Bally/Midway Mfg. Co. v. U.S. Int’l Trade Comm’n*, 714 F.2d 1117, 1122 (Fed. Cir. 1983) (stating that 19 U.S.C. § 1337(d) “requires the [ITC] to consider the effect of the exclusion of imports upon the public health and welfare”) (internal quotation marks and brackets omitted).

²¹ See Standards Development Organization Advancement Act of 2004, Pub. L. 108-237, 118 Stat. 661 (2004).

²² *Golden Bridge Tech., Inc. v. Motorola, Inc.*, 547 F.3d 266, 273.

²³ See Richard A. Epstein, F. Scott Kieff & Daniel F. Spulber, *The FTC, IP, and SSOs: Government Hold-Up Replacing Private Coordination*, 8 J. COMPETITION L. & ECON. 1, 28-29 (2012) [hereinafter “Epstein, *Government Hold-Up*”].

²⁴ See CTIA—The Wireless Association Website, *Wireless Quick Facts*, available at www.ctia.org/advocacy/research/index.cfm/aid/10323.

²⁵ See Richard S. Taffet, *The Federal Trade Commission’s Evolving IP Marketplace Report’s Challenge to Inventiveness, Innovation, and Competitiveness*, THE ANTITRUST SOURCE (February 2012) at 12 (noting statements by ANSI and major SSOs, such as ATIS, that they have not experienced “hold up”), www.americanbar.org/content/dam/aba/publishing/antitrust_source/feb12_taffet_2_27f.authcheckdam.pdf.

²⁶ See Epstein, *Government Hold-Up*, at 15-22; see also Hearing Transcript at 174-77, *Microsoft Corp. v. Motorola Inc.*, No. 10-cv-1823 (W.D. Wash. Nov. 19, 2012) (Testimony of Richard Schmalensee) (testifying, in response to questions from the court, that any potential for hold-up is mitigated by the fact that parties to licensing agreements are repeat players and have to interact with each other regularly on commercial matters well beyond a single license).

²⁷ Hearing Transcript at 180, *Microsoft Corp. v. Motorola Inc.*, No. 10-cv-1823 (W.D. Wash. Nov. 13, 2012) (Testimony of Kevin Murphy); see also *id.* at 201-02 (admitting that “hold-up has not necessarily been a problem”); *id.* at 183 (testifying that Motorola’s licenses merely “could” contain hold-up); Hearing Transcript at 67, *Microsoft Corp. v. Motorola, Inc.*, No. 10-cv-1823 (W.D. Wash. Nov. 16, 2012) (Testimony of Timothy Simcoe) (acknowledging that he has “no evidence that the dispute between Motorola and Microsoft in this case is in fact based on hold-up” and that he “can’t nail down any particular license from any company as an example of hold-up”); *id.* at 135-36 (Testimony of Matthew Lynde) (acknowledging that “I have no basis from economic evidence to conclude whether or not patent hold-up is a real problem”).

²⁸ See Keith Mallinson, *WiseHarbor, A Compendium of Industry and Market Analysis Articles on Intellectual Property in Mobile Communications Standards* (June 12, 2011) at 9, 12-17, available at www.ftc.gov/os/comments/patentstandardsworkshop/00007-60459.pdf.

²⁹ The so-called “patent wars” are really simply a marginal aspect of a larger contest: a small number of participants in a highly competitive industry, locked in a ferocious battle to establish market positions for competing operating systems. This uptick in litigation between a modest number of industry participants is *not* a symptom of any widespread, long-term, systemic, or otherwise serious problem. Once these cases end, as they inevitably will, the current fervor will subside and “business as usual” will resume for those companies and continue for others. See, e.g., Sindhu Sundar, *Apple, Samsung Reportedly Negotiating Deal to End IP Wars*, Law360.com (July 19, 2013), available at www.law360.com/articles/458780/apple-samsung-reportedly-negotiating-deal-to-end-ip-wars.

As David Kappos stated to the House Judiciary committee in May 2012, while he was serving as the Director of the USPTO: “I do not believe that [the patent wars are] a sign that there’s anything at all wrong with the innovation environment in the U.S. In fact, I think [they are] a byproduct of a very healthy overall innovation environment. These things happen. They sort themselves out.” See Kenneth Corbin, *Technology Patent Wars Sign of Robust Innovation*, CIO (May 17, 2012) available at www.cio.com/article/706589/Technology_Patent_Wars_Sign_of_Robust_Innovation.

³⁰ Indeed, if anything, it is “reverse hold-up”—*i.e.*, the opportunistic attempt by a potential licensee to obtain leverage over an SEP-holder by refusing to take a license on market terms—that is becoming a problem. See *Certain Elec. Devices, Including Wireless Communication Devices, Portable Music and Data Processing Devices, and Tablet Computers*, Inv. No. 337-TA-794, at 62-63 (July 5, 2013) [hereinafter “ITC Inv. No. 337-TA-794 Decision”] (recognizing that the conduct of the potential licensee illustrates the problem of “reverse hold-up”).

³¹ See Epstein, *Government Hold-Up*, at 20-21.

³² U.S. Dep't of Justice & U.S. Patent & Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments, at 5-6 (Jan. 8, 2013) [hereinafter "DOJ/USPTO Policy Statement"].

³³ See, e.g., Roger G. Brooks and Damien Geradin, *Taking Contracts Seriously: The Meaning of the Voluntary Commitment to License Essential Patents on 'Fair and Reasonable' Terms* in Intellectual Property and Competition Law 406-07 (Steven Anderman and Ariel Ezrachi eds., Oxford University Press, 2011).

³⁴ *Id.*

³⁵ See Press Release, European Telecommunications Standards Institute, IPR dialogue continues at ETSI (May 6, 2013) ("The meeting was attended by a large number of ETSI Members, as well as representatives of the European Commission, the US Department of Justice, and the US Federal Trade Commission. . . . Regarding reciprocity, FRAND, and Injunctive Relief the Committee is continuing to analyze various proposals."); Int'l Telecomms. Union website, TSB Director's Ad Hoc Group on IPR (noting meetings on "Patent Policy and its guidelines for implementation"), available at www.itu.int/en/ITU-T/ipr/Pages/adhoc.aspx.

³⁶ See Epstein, *Government Hold-Up* at 4-5.

³⁷ See *Apple, Inc.*, 2012 WL 5416941 at *15 ("There is no language in either the ETSI or IEEE contracts suggesting that Motorola and the standards-setting organizations intended or agreed to prohibit Motorola from seeking injunctive relief."). The recent district court decision in *Apple, Inc., v. Motorola, Inc.*, No. 11-CV-08540, 2012 WL 2376664 (N.D. Ill. June 22, 2012) (Posner, J.), neither refers to nor takes into account this history, *id.* at *12-22, and therefore is of little persuasive value on the question of whether a FRAND undertaking pursuant to the ETSI IPR Policy precludes the availability of injunctive relief. As the Court in the Western District of Wisconsin observed, Judge Posner "never refer[red] to the ETSI or IEEE policies as 'contracts'", and cited only "policy and economic arguments, not contract provisions" when addressing the availability of injunctive relief after making a FRAND commitment. *Apple*, 2012 WL 5416941, at *14.

³⁸ See ITC Inv. No. 337-TA-794 Decision at 46-48.

³⁹ See DOJ/USPTO Policy Statement at 7 (noting that exclusionary relief would "be an appropriate remedy in some circumstances, such as where the putative licensee is unable or refuses to take a F/RAND license and is acting outside the scope of the patent holder's commitment to license on F/RAND terms").

⁴⁰ See *id.* at 7 n.15 ("We recognize that the risk of a refusal to license decreases where the putative licensee perceives a cost associated with delay and increases where the putative licensee believes its worst-case outcome after litigation is to pay the same amount it would have paid earlier for a license.").