

Statement by

Sean P. Murphy

**Vice President and Counsel, International Government Affairs
Qualcomm Incorporated**

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For American Industry Abroad”**

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INTRODUCTION

Chairman Goodlatte, Vice Chairman Quayle, Ranking Member Watt, and Members of the Committee, thank you for holding this important hearing. My name is Sean Murphy, and I am Vice President and Counsel of International Government Affairs at Qualcomm, based at the company's headquarters in San Diego, California. For the past decade, I have managed a broad range of international public policy issues for Qualcomm, including intellectual property, international trade, and innovation.

I am honored to appear today before this distinguished body to discuss the importance of strong patents rights, both internationally and domestically, to Qualcomm and other American companies that compete in the global marketplace. U.S. technology leaders such as Qualcomm are key contributors to economic and job growth in this country. According to a report published in March 2012 by the U.S. Department of Commerce, America's most IP-intensive industries in 2010 generated direct employment of 27.1 million jobs and an additional 12.9 million jobs through indirect activities associated with these industries. In total, these 40 million jobs represent 27.7 percent of America's workforce. In 2010 these IP-intensive industries accounted for \$5.06 trillion in value added, or 34.8 percent of U.S. gross domestic product.

The United States currently leads the world in technological development, and maintaining that leadership position depends critically on the domestic and foreign laws, policies, and procedures that define the global competitive landscape. We must ensure that when U.S. companies like Qualcomm invent pioneering technologies, they can obtain robust patent rights throughout the world to protect those technologies. We must also secure and preserve the right of U.S. patent owners to license and enforce their rights on a global basis without unfair restrictions that could impede exports or artificially inhibit competition and consumer choice. If policymakers (at home or abroad) restrict market access to the benefit of local champions or weaken patent rights to promote a specific business model, we risk losing the innovative and competitive edge that has served this country so well throughout its history.

QUALCOMM OVERVIEW

Some of you may not be familiar with Qualcomm. Although our technologies and intellectual property have helped power the wireless communications industry for nearly two decades, we do not manufacture consumer devices. We once did: when Qualcomm was a young company and our early technology was unproven, we developed and sold equipment and devices to promote the deployment of our wireless technology. However, as our technology gained commercial acceptance, we sold two of our manufacturing divisions and refocused our business on two key areas, (i) fundamental technology research and development to ensure that our wireless technology is perennially state-of-the-art, and (ii) the design and sale of high quality semiconductor chips and software for wireless communications devices. Today, we are the sixth largest semiconductor supplier by revenue and the world's largest "fabless" semiconductor company – meaning that we invest heavily in research and development, and design our chips in-house, but do not own or operate our own semiconductor fabrication facilities. Instead, Qualcomm contracts with outside foundries to produce our chips based on our designs, which embody our intellectual property.

At Qualcomm, we attribute much of our early success and growth to America's gold standard patent system. Qualcomm's founders are the quintessential example of the storied American "inventors in the garage" who built a multi-billion dollar company on the foundation of highly innovative technology and strong patent rights. Since our founding in 1985, Qualcomm has evolved into a global business that derives more than 90 percent of its revenues outside the United States. Last year, our worldwide revenues were nearly \$15 billion, with roughly 60% resulting from the sale of chipsets and 30% from licensing revenues. We license our portfolio of wireless technology patents to more than 210 companies throughout the world – including in China, Taiwan, India, and Europe – and invest more than 20 percent of our revenues annually in research and development.

Even though Qualcomm is a global company, 70 percent of our 23,000 employees (65 percent of whom are engineers) are based in the United States. In that regard, Qualcomm exemplifies the critical importance of an IP-based economy. Through ongoing investments in research and development (R&D) and broad-based licensing of our patented technologies, Qualcomm is able to drive billions of

dollars in exports, while creating thousands of well-paying jobs for U.S. workers.

QUALCOMM TODAY: A GLOBAL LEADER IN WIRELESS TECHNOLOGIES

Despite its humble beginnings, Qualcomm is today a world leader in developing state-of-the-art wireless technologies, including the Code Division Multiple Access (“CDMA”) and Orthogonal Frequency Division Multiple Access (“OFDMA”) cellular technologies that are used worldwide for wireless voice and mobile broadband communications. Qualcomm’s CDMA and OFDMA technologies are integral to hundreds of mobile phones, tablets, e-readers, mobile applications, and a host of other wireless devices and services.

Qualcomm technology powers the third and fourth generations of cellular networks (commonly known as “3G” and “4G”) operated by wireless carriers throughout the United States and around the world. These carriers’ networks enable hundreds of millions of people, in rural, suburban, and urban areas alike, to enjoy ubiquitous and highly advanced mobile voice and broadband data services virtually everywhere they go.

Qualcomm has an extensive portfolio of U.S. and foreign patents relating to 3G and 4G digital wireless communications technologies, and the company continues to apply for and obtain patents in the U.S., Europe, China, Japan, South Korea, Brazil, India, Taiwan and other countries around the globe. Qualcomm broadly licenses its technology to more than 210 manufacturers worldwide who make network equipment, handsets, and other consumer devices and develop applications for cellular networks based on 3G and 4G technologies.

Since its inception, Qualcomm has invested more than \$19 billion in R&D. In fiscal 2010 alone, Qualcomm spent twenty three cents out of every dollar in revenue – or a total of \$2.55 billion – on R&D. By dedicating resources of this magnitude to new R&D, Qualcomm has developed many of the new wireless technologies that are now driving unprecedented growth in mobile voice and broadband services.

Qualcomm's chipsets support all the major frequency bands, the full gamut of standardized, globally harmonized 3G and 4G wide area mobile broadband and cellular technologies, Assisted GPS (A-GPS) location tools, Bluetooth, Wi-Fi, and many mobile device operating systems, such as Android, Windows Phone 7, and Qualcomm's own Brew Mobile Platform. We produce chips that the world's leading phone manufacturers use in their 3G devices. We're also producing chips based on the latest 4G Long Term Evolution (LTE) technology, but that remain compatible with existing 3G technologies to ensure wide coverage for multi-mode LTE/3G devices.

Qualcomm currently employs workers in 172 locations in over thirty countries. As noted above, however, 70 percent of our 23,000 employees are located in the United States. Our headquarters and the majority of our employees are in San Diego, but over the years we have opened additional facilities across the United States, including in Massachusetts, New Jersey, North Carolina, Texas, Colorado, Georgia, and Silicon Valley. We are proud to have been named one of FORTUNE's "100 Best Companies to Work For" for 14 consecutive years.

As one of the largest employers in San Diego, Qualcomm plays a significant role in shaping and contributing to the dynamics of the San Diego regional economy. According to a study conducted in 2008 by the San Diego Regional Chamber of Commerce, Qualcomm's total economic impact to the San Diego region was approximately \$5.5 billion in 2007. Also from the same study, Qualcomm employed over 10,000 people directly in San Diego in 2007, and money spent by Qualcomm and its employees created and supported over 26,000 jobs touching a variety of goods and services in San Diego County. As of 2007, Qualcomm was responsible for economic output equal to approximately 3 percent of the Gross Regional Product of San Diego County and supported an estimated 2.4 percent of total jobs. And of course, Qualcomm's contribution to San Diego's economy is much more significant today, given our continuous, rapid growth.

Today, greater San Diego is home to hundreds of telecommunications companies, from startups to leading research and development facilities of global telecom companies. This is in sharp contrast to what existed in 1985. Today, the telecom industry boosts the region's economy with thousands of high-paying jobs. Qualcomm has contributed to the creation of this industry cluster through both spin-offs

and partnerships with our licensees.

Because of the technologies we've created at Qualcomm, people the world over are interacting with each other in ways and numbers that may have seemed unimaginable in 1985. In 1999, in the 2G era, there were approximately 350 million mobile subscribers worldwide. Thirteen years later, in the era fueled by Qualcomm's 3G technology, there are now more than 6 billion wireless connections globally in a world with 7 billion people.

And this cellular technology is not limited to those who can afford smart phones. Approximately 2 billion people in the developing world are living on less than \$1.25 a day, yet many of them have a mobile device. Indeed, from here on, access to the internet for the vast majority of the world's population is going to be through the cell phone. As economist Jeffrey Sachs notes, poverty is equated with isolation in many parts of the world and results from "lack of access to markets, to emergency health care services, access to education, the ability to take advantage of government services and so on. What the mobile phone – and more generally IT technology – is ending is that kind of isolation in all its different varieties." Mobile technology empowers individuals at all economic levels and in all corners of the world, and changes the trajectory of people's lives.

With more than \$1.3 trillion in annual industry revenue, mobile phones have become the largest technology and information platform in history. And one year ago, we reached a key tipping point: the number of mobile broadband Internet subscriptions surpassed fixed line users. Mobile data usage, which is directly enabled by Qualcomm's technologies, is growing rapidly. Last October, the Federal Communications Commission projected that mobile data usage would grow by more than 35 times from 2009 to 2014. Since Qualcomm's founding just over 25 years ago, the mobile phone has evolved from a means of voice communication into an extraordinarily powerful mobile computer. Qualcomm's innovative CDMA technology helped drive that transformation.

QUALCOMM'S EARLY DAYS: PROOF THAT AMERICA'S PATENT SYSTEM WORKS

From its inception, Qualcomm has been driven by a desire to make dramatic changes in the way people work, live and learn. Qualcomm was formed in July 1985 at a meeting of our seven founders in Dr. Irwin Jacob's San Diego home. At the time, available wireless technologies could not support reliable and affordable service. Our founders started without a specific product in mind, but with the determination to solve this problem by creating new and revolutionary communications technologies. Within a few months of founding Qualcomm, Dr. Jacobs realized that the principles upon which CDMA is based (known as a spread spectrum technology) could provide a significant advantage over time division multiple access (TDMA) digital technologies, which were, at the time, being proposed within the wireless industry to replace the existing analog technology. Qualcomm's founders were convinced that by enabling reliable, high quality, and affordable service, CDMA had the potential to cause a dramatic leap forward by the then nascent wireless industry.

In Qualcomm's early days, CDMA was widely perceived as a promising but risky technology. Commercializing our vision for CDMA was a difficult and costly process, and by necessity, we sought funding from numerous sources. Our core patents were our most valuable assets in these early days, helping to secure funding, offering a source of future revenue, and safeguarding our technologies against theft. Moreover, our early patent and technology licenses provided necessary funding to continue our development of CDMA technology.

Qualcomm first deployed its technology in the transportation industry. Between 1985 and 1988, Qualcomm developed a wireless, two-way messaging and positioning system that would enable trucking firms to closely track their drivers' progress while enabling drivers and dispatchers to send messages to each other. This system, named OmniTRACs, has grown to become the largest satellite-based commercial mobile communications and asset-tracking system for the transportation industry.

Based on the revenues generated by OmniTRACs, we were able to turn our attention once again to commercializing CDMA. Companies around the world had studied CDMA technology but had encountered technical difficulties. By 1989, Qualcomm was able to demonstrate that we had solved the

critical technical problems. Because CDMA offered a significant increase in spectrum efficiency – i.e., that is, the number of subscribers a carrier could support in a given allocation of spectrum – carriers offered support and urged their manufacturers to work with us.

Qualcomm quickly realized that licensing its patented CDMA-related technologies to existing suppliers of wireless consumer devices and system network equipment would accomplish two important objectives. First, it would provide Qualcomm funding from upfront license fees that would enable Qualcomm to continue and grow its CDMA research and development (R&D) program and fund our costs in developing integrated circuits for commercial handsets and system network equipment. Second, and perhaps even more importantly, it would develop an ecosystem of licensed manufacturers committed to Qualcomm's CDMA technology. Qualcomm even organized teams of its licensees to help conduct and monitor test systems that Qualcomm installed in San Diego.

The first commercial CDMA network began operation in the fall of 1995 in Hong Kong. Still, there remained considerable doubts about CDMA and strong opposition from members of the wireless industry who were invested in other technologies. Well-known manufacturers of handsets and infrastructure equipment, such as Nokia, Ericsson and Motorola, had invested in other established technologies, and were reluctant to switch to CDMA network equipment and handsets. As a result, as I mentioned earlier, Qualcomm had to build and operate its own infrastructure and handset businesses until CDMA technologies were well established.

In the early 1990's, Qualcomm began to work closely with the Electronics and Telecommunications Research Institute (ETRI), an agency of the South Korean government, to finalize commercial specification for a CDMA network to be deployed in South Korea. Based upon that work, and Qualcomm's licensing of its technology to key Korean manufacturers such as Samsung, LG, and Hyundai, CDMA was adopted by the South Korean government as the next generation of wireless networks in that country. CDMA was deployed in South Korea in 1996. Soon, South Korea became renowned for having the most advanced wireless networks in the world, a reputation that persists today. Based on CDMA's success in Asia, CDMA was ultimately adopted in the United States and in many other venues around the world.

Despite breaking into Korea and the United States, Qualcomm continued to face intransigence in the European regulatory and standards bodies. Established European interests were intent on locking American technology out of the European marketplace. But, through dogged advocacy and the inevitable effect of free market forces when presented with a superior technology, CDMA was eventually allowed in Europe as the third generation standard and allowed to compete with the TDMA-based 2G wireless technology then prevalent in Europe.

As mentioned earlier, as our technology gained commercial acceptance, we made a strategic decision to sell the handset and infrastructure divisions of Qualcomm and concentrate on new, advanced core wireless technologies and designing and selling integrated circuits and software to consumer device and system network equipment manufacturers. By specializing in innovation, we were able to better utilize our resources to advance the technology. Moreover, because we elected early on to license broadly our patented technologies, we helped drive a far larger, more diverse, and competitive wireless industry, which in turn has fueled limitless opportunities for new forms of economic and social development.

INNOVATION & PATENTS

Qualcomm's fight to gain acceptance and deployment of CDMA was not easy. The established industry players did not want to take on a new technology, particularly one that would enable new competitive manufacturers. Even after Qualcomm built and successfully demonstrated a small CDMA system incorporating its solutions, a Stanford University professor stated that we would not succeed because our technology "defied the laws of physics."

Needless to say, the deep and widely-held skepticism about CDMA made investment in Qualcomm a very risky undertaking. Yet despite enormous odds and unrelenting opposition from entrenched industry participants who were committed to other technologies, Qualcomm ultimately was able to raise the necessary capital to continue its work. Why? Because the patent system offered the promise of market-based rewards if Qualcomm's solutions succeeded and allowed the potential of CDMA to be realized.

If the United States or other governments make the wrong policy choices regarding intellectual property, innovation will quickly be stifled. At Qualcomm, we view technological innovation as a chain with value added at each stage. It starts with an invention – often, a disruptive invention that is the necessary first link. However, as Qualcomm’s history attests, the initial invention stage, though fundamental, requires numerous additional stages before commercial applications of the invention are even feasible, let alone profitable.

Strengthening – or at least preserving – incentives to innovate, both nationally and internationally, should be viewed today as a top priority for U.S. policymakers. After all, IP has become our number one export. As USPTO Director David Kappos has so aptly put it, intellectual property is “the global currency of innovation.” If incentives to invest in basic R&D are weakened and disruptive inventions are never realized, new product development will inevitably decline. American workers and consumers will be worse off, and the United States will risk losing its technological and competitive edge.

Qualcomm’s experiences as a small startup company illustrate the close relationship between IP protection, innovation, and economic growth. In our early days, Qualcomm’s success was dependent on its ability to negotiate license agreements with some of the largest companies in the world at that time – AT&T, Ericsson, Sony, Panasonic, and Motorola. These agreements provided upfront license fees for funding Qualcomm’s early R&D and the potential of royalty income to reward Qualcomm’s shareholders could our technology be successfully deployed.

How could such a young company, even with a great new technology, navigate a marketplace dominated by these industry giants? More importantly, how could we convince these far more powerful players to license our technology? The answer was, and still is, rooted in our strong system of patent rights and remedies.

Of course, Qualcomm’s story does not end with the acceptance and eventual success of CDMA. Ours is a dynamic competitive industry where no company can afford to take a breath and rest on its success. Year after year, Qualcomm makes enormous investments, averaging more than 20% of its annual global revenues in R&D – a much greater level of investment than most technology companies. We see our

business model as a continuous “virtuous cycle” of innovation. We invent, and we protect our inventions through U.S. and foreign patent rights; we license our patent portfolio to others; we collect royalties from our licensees and reinvest those royalties in more R&D that produces new inventions.

Today, Qualcomm’s success and continued ability to innovate is tied to the growth of the entire wireless ecosystem. Our licensing program reflects that linkage. We broadly license our patents to propagate our technology. And when we patent new inventions in 3G technology, our existing licensees get the benefit of those inventions without an increase in the royalty rate they pay to Qualcomm. Looking beyond 3G, we have actively pushed the envelope and contributed to the launch of the fourth generation (4G) of wireless innovations – a technology called Long Term Evolution or LTE. Our R&D efforts have translated into one of the most significant portfolios of LTE patents among all industry participants.

Critical to innovation is the patent-based system of risk and reward. Qualcomm’s shareholders allowed us to take risks based on the confidence that, if we did successfully innovate, a strong patent system would allow us to earn a reasonable return on investment. But access to funding is scarce, and it is getting scarcer. We need to ensure that risk capital is available for research, development and commercialization. If we create significant uncertainty as to a patent’s value or enforceability – whether through weaker IP rights, regulatory intervention, or other policy changes – capital will cease to flow to innovators, and technological development will decline – affecting our prosperity and ultimately the world’s quality of life.

All stakeholders – industry, governments, NGOs, academia and other international institutions – should have a shared interest in preserving incentives to create and propagate new and useful inventions. As Qualcomm’s co-founder and original CEO and Chairman Dr. Irwin Jacobs once said: “Without such incentives, we will measure the cost by the bells that don’t ring, the cures that are not developed and the technologies that are not invented. In the long run, society will be the poorer for it.”

Today, the United States invests more in intangible assets than any of our major trading partners. Our intangible assets now exceed tangible assets by more than 20 percent – a trend that is likely to continue

and even accelerate. As a result, we are the envy of the world. Developed and developing countries are actively trying to emulate our success. China is a notable example. According to China's patent office, in the late 1990's, foreign patent applications exceeded domestic applications by a significant margin. Foreign companies like Qualcomm were applying for patents in China at a much greater pace than Chinese companies. However, by 2001, Chinese applicants caught up to their foreign counterparts, and in recent years, Chinese companies have filed twice as many patent applications in China as foreign companies.

Chinese entities have also increased dramatically patent filings outside of their home borders. This move to escalate patenting activity is part of China's broader plan to build rapidly an innovation-based economy, comparable to our own. With the support and subsidization of the Chinese government, leading Chinese technology companies, such as Huawei and ZTE, have emerged as important players in IP-intensive industries.

CHALLENGES TO U.S. INNOVATORS AND PATENT RIGHTS

Because Qualcomm's business is global, we need to maintain constructive relationships with governments around the world. As a result, I will refrain from identifying any government or country by name and focus on the types of laws, policies, and governmental action that can complicate our ability to do business, conclude patent licensing and other business agreements with customers, or collect royalties from business arrangements outside the United States.

Broader Trends Toward Weakened Patent Rights and Restricted Market Access

Today, U.S. innovative leadership and competitiveness are threatened by at least two forces. First, our trading partners are understandably eager to emulate IP-intensive U.S. industries on the path to technological leadership. That's fine, and even welcome, as long as success is achieved through innovation and competition on the merits. Unfortunately, however, we see efforts by foreign governments and competitors to achieve technological and commercial dominance through domestic preferences, market access barriers, and other protectionist measures.

Second, there is a growing trend, perhaps unintentional but certainly misguided, to devalue intellectual property rights in the United States and worldwide. Finding the right balance between IP rights and competition can sometimes be difficult. Today we see troubling signs that the proverbial pendulum is swinging toward a weaker patent system, certainly in emerging economies, but also in advanced, industrialized economies like the European Union and even the United States. As a company that owes much of its success to strong U.S. patent rights – as contemplated in our Constitution and shaped by more than 200 years of laws and jurisprudence – we find this trend profoundly troubling. And we fear the potential consequences for the U.S. economy and competitiveness as a whole, for job creation, and for our dynamic culture of innovation.

Calls for weaker patent rights and remedies are driven by different perspectives and objectives. There will always be IP skeptics who are ideologically opposed to strong property rights and simply do not believe in the nexus between intellectual property, innovation, and competition. Increasingly, however, efforts to weaken and devalue patent rights are driven by short-term commercial self-interest. Even in the United States, we see certain companies and industry coalitions advocating legislative and regulatory measures to weaken and devalue patent rights as a means of promoting specific business models.

These IP critics are, in effect, asking policy makers to favor large implementers of new technologies over non-manufacturing patent owners that license their technologies – for example, through measures that would limit remedies for patent infringement or restrict the patent owner’s ability to license its rights through bilateral, market-driven negotiations. To pick winners and losers among different participants in America’s innovation economy is a dangerous proposition, particularly in a highly competitive global marketplace. What’s more, doing so would undermine the democratic system of risk and reward envisioned by our founding fathers.

The so-called “smartphone patent wars” we are currently observing have fueled much of the recent mythology of a “broken” patent litigation system. Although characterized as an unprecedented surge in patent litigation, these cases – which implicate a handful of large mobile device manufacturers and operating system software providers – are merely the latest in a series of “battles of the titans” that have

periodically erupted in times of intense technological change. The sheer number of parallel U.S. and foreign infringement suits filed by these same competitors fuels the perception of patent litigation run amok. Of course, alleged infringers have every incentive to perpetuate this perception by blaming their plight on an “imbalanced” patent system that threatens to stand between consumers and their favorite mobile devices.

In reality, however, the smartphone cases are all part of an interrelated web of lawsuits initiated by a small subset of large incumbent competitors vying to expand their technological footprint and market share. Similar waves of patent litigation have occurred in previous periods of significant technological development, including in the 19th century with the so-called telephone and sewing machine wars. The number of patent lawsuits related to the smartphone business is nearly 100. In the late nineteenth century, the American Bell Telephone Company, founded by Alexander Graham Bell, litigated 587 patent cases, five of which went to the U.S. Supreme Court.

Similarly, the first commercially successful sewing machine also sparked a flurry of lawsuits in the nineteenth century, implicating numerous inventors of complementary technologies, most notably Elias Howe and Isaac Singer. The ensuing sewing machine war was ultimately resolved when the four principal patentees agreed to pool their patents and enter into cross-licenses, which allowed each to compete in the marketplace without the threat of litigation. We are quite likely to see a similar, commercially-driven resolution to the smartphone wars without any need for government intervention or inconvenience to mobile phone users. In fact, the enormous volume of recent patent acquisitions within the smartphone sector may suggest that a cease fire is imminent.

Nevertheless, the recent smartphone disputes have attracted the attention of certain members of Congress, the Federal Trade Commission, the Department of Justice, and foreign antitrust agencies including the European Union’s Directorate General for Competition. To a significant degree, this regulatory attention has been prompted by the efforts of certain litigants to encourage government intervention. To the extent competition authorities take the bait and attempt to weaken patent rights, impose price controls, regulate royalty rates or other licensing requirements and restriction, these short-term measures could, in the long run, profoundly limit innovation and make America less competitive.

Throughout its existence, Qualcomm has experienced first-hand similar situations where governments have favored established manufacturers and their technologies over newer, more innovative, but ultimately disruptive inventions. As noted above, our superior technology faced significant resistance in the United States and Europe from entrenched industry participants. Had government regulators chosen to reward industry incumbents over market-driven competition, the smartphone industry might have suffered immeasurably. Certainly, if certain important countries had remained closed to Qualcomm's technology (and its leading telecommunications manufacturers advocated), the wireless ecosystem would not be as expansive and global as it is today.

In fact, the wireless communications sector was largely static in the 2G era between 2000-2005, with a handful of entrenched companies dominating the technology and marketplace. In contrast, 3G technology, driven in no small part by Qualcomm's patent licensing program, has opened the door to a broad variety of new entrants from different parts of the world. The global wireless communications industry has been characterized by explosive growth, constant technological advancement, lower prices, and a pattern of new entrants and shifting competitive leads. During this same period of rapid 3G-driven growth, certain entrenched 2G GSM manufacturers have faltered in the face of new competition. They have failed to keep pace with the level of product innovation displayed by new entrants in the dynamic and fast-changing sector.

Illustrations of Specific Threats to American Businesses Abroad

These broader efforts to restrict market access, weaken patent rights, displace imported technologies and foreign intellectual property in favor of "indigenous innovation" and restrict technology licensors' ability to freely contract with their customers translate into a range of specific public policy measures that threaten to undermine the competitive position of Qualcomm and other U.S. innovators abroad. Some of these governmental measures and actions are summarized briefly below.

1. **Government Interference in Technology Licensing:** U.S. innovators operating overseas from time to time experience overt or informal pressure from foreign governments

demanding concessions to reduce the price of our patented technologies below values established by the global marketplace, whether in the form of reduced licensing fees or royalty rates. Furthermore, foreign governments may not allow a U.S. innovator to license its patented technologies to domestic companies, unless it reduces the price of associated products.

2. **Local Working Requirement:** Even though our international trade agreements prohibit so-called “local working” requirements, certain countries continue to condition patent rights on the existence of domestic manufacturing operations. These requirements are plainly discriminatory and a clear impediment to adequate patent protection and market access for patented inventions.

3. **Restrictions on Patentable Subject Matter:** Substantive differences in patentable subject matter result in Qualcomm’s inability to obtain patent protection for certain inventions outside the United States, such as software or functionality that is not embodied in physical medium. These gaps in patent coverage make it more difficult for American companies to protect their innovations abroad and could open the door to copycat technologies that vie for market share. In other instances, governments and private pressure groups have called for price regulation or the non-enforcement, revocation or denial of patent protections for certain types of technologies associated with social benefits, e.g., universal, low- or no-cost access to the Internet for all humanity. Broad exemptions or limitation of this nature will severely impede incentives for innovators to engage in risky R&D and could ultimately result in less technological advancement.

4. **Unique National Standards and Technical Regulations:** To promote domestic industry and technology, some governments have attempted to compel discriminatory changes to international standards or mandate unique local technical standards. Invariably, these efforts claim seemingly legitimate objectives, such as interoperability and data security; however, the ultimate goal is to promote domestic technology and “national champions” and/or devalue or exclude U.S. technology. For example, a foreign company may be excluded from

the technical work of the local standards body, unless it agrees to license its patented technologies on a royalty-free basis or at below-commercially established royalty rates.

5. **Conformity Assessment Requirements:** Certain governments have attempted to appropriate U.S. proprietary technology by imposing “conformity assessment” requirements for products that are imported or incorporate foreign-origin intellectual property. The purported objective of such programs is to ensure that foreign technologies comply with local technical norms, environmental or safety specifications, or product standards. However, in some countries, governments have used these programs to compel U.S. and other foreign businesses to disclose source code or other proprietary information to domestic inspection agencies or government-linked labs, even though the information has little or nothing to do with applicable norms. The governments have refused to accredit qualified labs outside their country to perform these tests or recognize their testing and certification results. In effect, these requirements are a form of forced technology transfer.

6. **Industrial Policy Measures:** Many governments have adopted protectionist industrial policy agendas that more broadly aim to subsidize and promote local innovation, manufacturing, and employment. Examples include measures to:
 - i. Suppress demand for patented inventions owned by foreign companies and/or substitute them for locally invented or developed technology in order to give local inventors more opportunity and bargaining power over foreign competitors.

 - ii. Compel foreign companies to move their R&D activities to a given country to obtain some preference or benefit or avoid some form of penalties – e.g., by providing that only products embodying domestically invented, developed, or manufactured technology are eligible for government procurement.

 - iii. Compel the patent owner to lower royalties or other fees it seeks from domestic licensees. This is tantamount to government price-setting in the form of a royalty regulation that

benefits domestic companies and national champions.

- iv. Cause the patent owner to impose lower royalties or other fees on products made or sold domestically, as opposed to products exported or made outside the country.

7. **Questionable Antitrust Enforcement**: When used for protectionist purposes, foreign competition laws are a major threat to American businesses and their proprietary technologies. Although competition and patent laws share a common goal – to spur innovation and promote consumer choice – certain competition authorities are skeptical of patents, which they view as time-bound monopolies. This perspective, when coupled with anti-American, protectionist, or other industrial policy motivations, can create significant risks for American companies that own valuable patents. Indeed, given the severity and often extra-territorial nature of penalties associated with antitrust violations in most countries, and the uncertainty and expense of defending against such allegations, even the threat of a foreign antitrust investigation or enforcement action can prove a powerful stick with which to compel a range of important concessions. Below are examples of questionable antitrust enforcement that aim to benefit domestic technologies and/or industries:

- i. Some foreign regulators have accused American technology companies of abusing their market power when they refuse to offer licensing terms that uniquely benefit local industry, regardless of whether such terms are unfair or otherwise detrimental to the U.S. or other foreign company's economic position.
- ii. Regulators have initiated formal investigations and enforcement actions against U.S. entities on the basis of a "refusal to deal" or failure to share "essential facilities" on commercial terms that are favorable to domestic competitors.
- iii. Foreign competitors and customers of U.S. technologies firms have used, or threatened use of, local antitrust laws to pressure American patent holders to offer concessions (e.g., to forego cross licenses from the licensee of its relevant patents in partial compensation

for the license granted) or waive certain statutory or contractual rights against infringers (e.g., the right to injunctive relief).

There are ample other examples of discriminatory governments policies that support local champions by pressuring the U.S. licensor to transfer its IP on non-commercial terms. While authorities may think this is the right policy for the short-term, many countries recognize that this approach is ultimately harmful to their long-term interests, as their own industries gradually move up the value chain from manufacturers to innovators and owners of valuable intellectually property.

PRESENT FOCUS ON STANDARDS-ESSENTIAL PATENTS

This focus on antitrust regulation has also brought new attention to the work of standards bodies and the concept of standards essential patents. Competition agencies are adopting the negative terminology developed by critics of intellectual property rights. Terms like “holdup” and “lock in” and “royalty stacking” are increasingly used to suggest that they are the direct and inevitable results of a patentee’s assertion of its rights. And these agencies are wrongly implying that the mere possession of a patent, particularly one that may be essential to a standard, is sufficient to establish the presence of market power, which in turn is sufficient to justify government intervention. As a result, antitrust agencies in major technology regions, including the United States, European Union, South Korea, and Japan, have initiated antitrust investigations, or threatened to do so. These investigations could result in a significant departure from existing and well-settled antitrust policies, which have recognized the complementary objectives and benefits of intellectual property rights and competition law.

These theoretical concerns have no basis in reality. For over 40 years, the voluntary standards process for wireless technology has evolved to the point of worldwide cooperation among national and regional standards setting organizations in the form of partnerships to develop common standards. These standards, and the competition among participants and new entrants to build conforming products, have led to extremely sophisticated equipment that has been implemented in an efficient, cost-effective manner. In turn, the voluntary industry standard setting process has helped create a very competitive international marketplace.

The growth in sales of these products has been enormous – in fact, much greater than previous generations of products. Moreover, the products offered to the consumer have evolved with new technologies at an astounding pace. Consider the cell phone of ten years ago, compared with today’s most advanced smartphones. Continued innovation within the United States and throughout the world depends on viable standards. In this regard, the current consensus-based voluntary system has proven highly effective.

We know of no technical standard whose widespread acceptance has been hindered by holdup or other hypothetical concerns. It is not in the self-interest of patent owners and standards participants. After all, most innovative companies who participate in the standards process are there for the long haul. They want to have input into the technology as it evolves, as well as input into the next wave of technological development. Abuse of the process would be a one-time event: they would be ostracized from the industry, and none of their future contributions would be accepted.

In contradiction to this record of success, misguided calls for government intervention could undermine incentives that drive and reward innovation. Some foreign governments already use guidelines and regulation to skew competitive conditions to benefit home-grown companies. In the United States, antitrust authorities and other policymakers need to consider carefully the broader implications of government intervention that could weaken America’s ability to compete in the global economy.

The recent report issued by the U.S. Federal Trade Commission (FTC), just last year, calls upon U.S. courts to alter the balance between patent and antitrust laws in a way that appears to ignore well established legal principles. The FTC’s recommendations seem to ignore the will of Congress and the importance of a free market to IP-based economic growth. Among other things, this report recommends some of the very same changes to patent remedies that were ultimately rejected by Congress when it enacted the American Invents Act of 2011. Such regulatory intervention is, in Qualcomm’s view, unnecessary and, more importantly, it would undoubtedly upset the balance in the current system, which appropriately allows the marketplace to operate freely.

Further, because such ill-advised recommendations come from a respected U.S. government agency, they could influence foreign government agencies to adopt policies that weaken patent rights or impede the ability of U.S. technology suppliers and patent licensors to negotiate commercial arrangements concerning the intellectual property on reasonable terms, particularly in emerging economies that are currently developing their own intellectual property, antitrust and innovation policies. This could diminish the value and enforceability of multi-jurisdictional patent portfolios owned by U.S. companies and employers of all sizes. We urge U.S. government agencies to consider the broader global impact of their IP-related recommendations before issuing controversial reports, particularly when recommendations to weaken patent rights lack any empirical support.

Qualcomm would also urge competition authorities to consider the commercial self-interests of complainants or advocates for change that could have the effect (directly or indirectly) of weakening patent rights. Companies that use third-party patented technologies to produce their own products and services will invariably seek to obtain those patents at the lowest possible cost. This is true even when those companies own a significant number of patents. Many product and service providers acquire patents to strengthen their competitive position or defend against infringement claims. If their patents are not an important source of profitability and ongoing R&D, they may view third party patent rights primarily as an unwanted cost of doing business.

Governments should recognize that, in a highly diversified global economy, innovation comes in many different forms and business models. Government actions and policies should avoid picking winners and losers and, instead, promote the full spectrum of business models and IP licensing activities that drive technological development on a global scale and will produce jobs in the future. Moreover, policies should aim to incentivize and support the next generation of American inventors, who today toil in their garages, workshops, universities, or corporate laboratories in reliance on the established system of risk or reward embodied in U.S. patent laws.

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In closing, we urge Members of the Subcommittee to keep in mind the likely domino effect of U.S. IP-related policies on American businesses abroad. The U.S. economy has long benefited from the strongest intellectual property laws in the world. America's system of patent rights and remedies is universally recognized as the gold standard, and, as such, it has given us the moral authority and credibility to fight for stronger protection of U.S. innovations in foreign countries. Maintaining that authority is critical in today's increasingly competitive global economy. If the United States weakens patent rights at home or diminishes the rights of certain business models, our ability to press foreign countries to respect American intellectual property will be greatly diminished. Indeed, we will embolden other countries to adopt even more damaging policies that could jeopardize the continued preeminence of America's most productive industries.

Thank you again for the opportunity to appear before this Subcommittee share Qualcomm's views on this critical topic. I look forward to answering your questions.