

Testimony of

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Chairman Hatch, Ranking Member Leahy, and Members of the Subcommittee: My name is Joel Poppen and I am the Deputy General Counsel for Micron Technology, Inc. Thank you for allowing me to testify today on the very important topic of patent reform.

The discussion about patent reform, and indeed most of the testimony that will be presented to this Subcommittee today, focuses on a two general areas - improving the quality of patents issued by the Patent and Trademark Office and redressing problems in patent litigation. While Micron generally supports reforms that will lead to the highest quality of patents possible, my testimony today primarily will focus on patent litigation issues that we believe threaten the viability of innovative manufacturers, and ultimately the patent system itself, if not properly addressed through legislation.

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Micron is a significant stakeholder in the patent system and, accordingly, has a keen interest in its improvement. Micron is one of the world's leading providers of advanced semiconductor solutions. Micron's DRAM and Flash memory components are used in today's most advanced computing, networking, and communications products, including computers, workstations, servers, cell phones, wireless devices, digital cameras, and gaming systems. Micron also provides CMOS image sensor solutions to the handset camera, digital still camera, and PC video camera markets. Micron is driven by an unwavering commitment to be the most efficient and innovative global provider of semiconductor solutions.

Micron's investment in research and development, and the company's focus on innovation, has led to a portfolio of over 12,000 U.S. patents. For the past five years, Micron has been among the top ten recipients of U.S. patents. In 2004, Micron was awarded 1761 U.S. patents. For the last three years, MIT's Technology Review has ranked Micron's portfolio as number one in technological strength among the semiconductor industry.

## I. INTRODUCTION

Without question, a strong patent system is essential to today's technology-based economy. By granting a period of market exclusivity to patent holders, the U.S. patent system has historically encouraged investment in new and innovative products and services. This system has performed admirably as a powerful engine of technological growth. In recent years, however, increasing numbers of opportunists have exploited weakness or loopholes in the

patent system to effectively achieve a "hold up" of those who innovate, manufacture, and bring products to consumer markets. Such abuse threatens to undermine the intended incentives of the patent system and to harm real innovation.

The legal environment has become more favorable to patent opportunists at the expense of innovators. This trend is responsible, in substantial part, for the 60% increase in the annual number of patent suits filed in district court over the last ten years. In addition, the typical costs of defending a patent litigation are at least \$3 million, and often multiple times that amount. As experts pointed out in a recent book analyzing the breakdown of the patent system, "[g]iven these large costs [of defending a patent infringement suit], and the realization that cases seem to have increasingly favored patent holders, even targets that think they are not infringing have a strong economic incentive to give in rather than fight. This means there are probably many cases of stifled competition." This "burgeoning patent litigation is increasingly making lawyers the key players in competitive struggles rather than entrepreneurs and researchers. As the patent system becomes a distraction from innovation rather than a source of incentive, the engine of technological progress and economic growth begins to labor." To curb the growing abuse and to realign the intended incentives, the patent system must be reformed through targeted legislation.

## II. PATENT SYSTEM ABUSES AND LEGISLATIVE SOLUTIONS

The most significant problems with the patent system, and those that demand the most immediate attention, can be corralled into three categories: "inventing patents" rather than patenting inventions; improper litigation leverage; and excessive and disproportionate damages awards. I will address each of these categories by describing the abuse, explaining the real-world implications, and proposing the appropriate legislative remedy.

### A. "Inventing Patents" Rather Than Patenting Inventions

One area of patent system abuse relates to an increasing number of manufacturers, both large and small, coming under attack from those who are "inventing patents" rather than patenting inventions. These "inventors of patents" use a variety of techniques, including "patent stalking" (also sometimes referred to as "submarine patenting"). In general terms, patent stalking refers to the process of tailoring patent claims over time to cover the legitimate activities of others. The "patent stalker" first files a broad patent application describing the expected future direction of an industry in very general terms. Then, while maintaining the application in secrecy, the stalker monitors innovative manufacturers and watches how technologies are ultimately developed and implemented. Often, they monitor industry standards-setting organizations to learn future technology direction. With this information, the so-called "inventor" can amend the pending claims over time (typically utilizing multiple "continuation" applications and taking advantage of the original filing date of the original application) to cover the activities of a given industry.

In most cases, the "patent stalker" waits until manufacturers are locked in to the particular technology before surprising them with unanticipated patent claims (and often steep) royalty demands. The targets of these assertions are unaware of the claims because the patent and claims may not become publicly available until the patent issues. Although the American Inventors Protection Act of 1999 mandates publication of applications at eighteen months after filing, that provision carves out a broad exception for inventors to opt out of the requirement if the inventor elects not to pursue foreign patent rights. Putting aside the problem of secrecy, even if the application and pending claims were published at eighteen months, nothing currently prohibits the inventor from pursuing different, even broader, claims during an extended prosecution period (provided those claims are supported by the specification of the patent) that will eventually cover technology adopted by the industry.

In an increasingly common model for attacks on manufacturers, individuals intent on patent profiteering form a company solely to develop or acquire patents and exploit them for financial gain rather than to bring new products to market. Engineers flock from research and development at manufacturing companies to these professional patent firms. In return for "inventing patents," these engineers share in the cash flow generated by the exploitation of the patents against others. In a variant of that model, lawyers or professional patent firms purchase patents to assert against manufacturers. Many patents owned by distressed or bankrupt companies can be acquired at minimal cost or for a share of the potential bounty gained from the exploitation of the patents.

Regardless of the type or label, "inventors of patents" have at least one thing in common: they do not use patents to protect their own products or market their own technology (which is the underlying justification for every Patent Act since the original Patent Act of 1790). Instead, they use patents to extract unfair royalties from industry innovators who bring the benefits of innovation to the public by actually engaging in the manufacture and sale of products in those markets. Of course, the patent system was never intended to encourage or protect these sorts of activities. The purpose of the patent system is well known - it provides incentives to would-be innovators to invest the resources necessary to bring the benefits of inventions to the public.

But, contrary to the underlying bargain of the patent system, "patent inventors" do not teach, sell, or transfer any technology or know-how at all. Instead, they "manufacture" patent claims and then "sell" a royalty bearing license allowing the victim to avoid an infringement lawsuit and the threat of a fatal injunction. Ultimately, the unfortunate targets of tailored patents who refuse to meet these royalty demands face an expensive patent infringement lawsuit and the grave threat of an injunction shutting down their business if they fight the patents and lose. The predicament is further exacerbated when the patents are asserted by professional patent firms who do not manufacture anything and accordingly are not at risk of a counterclaim based on the target's patents. The result is an increasing and substantial "royalty tax" on U.S. industry - including the most innovative companies in the nation - without any of the benefits otherwise guaranteed by the patent system.

The patent laws need to be amended to redress the "inventing patents" abuse. First, applicants should be required to file the broadest claims to which they believe their invention entitles them within twelve months of filing the original application. No claim broadening should be permitted beyond the twelve month deadline, whether presented in the same application, as part of a continuation application, or as part of a reissue application. Inventors should disclose to the public the full scope of what they think they invented and should not be allowed to abuse the system by later claiming a broader or different invention after watching the evolution of technology and products. Twelve months is an objectively reasonable period of time for inventors to identify the maximum scope of patent protection sought.

To implement the change, 35 U.S.C. should be amended by creating a new section 123. Section 123(a) would codify the requirement of submitting the inventor's broadest claims within twelve months. Section 123(b) would help ensure that applicants will not submit overly broad claims to try to circumvent the intention of section 123(a). The specific proposal is to add the following language:

#### 35 U.S.C. § 123

(a) No enlargement of the scope of the claims submitted within 12 months of the earliest date for which a benefit is sought under this title shall be permitted in the prosecution of an application, or in any application which claims the benefit of the filing date of such application.

(b) A patent shall be unenforceable if it issues from, or claims the benefit of the filing date of, any application that contained a claim that was known at the time of submission to be unpatentable under any of the conditions set forth in section 102 of this title by persons then having a duty of candor and good faith with respect to such application.

An additional amendment is needed to 35 U.S.C. § 251, Reissue of defective patents, to prohibit broadening claims in the patent reissue process. The last clause of the last paragraph of section 251 should be struck as follows:

"No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent."

Second, the publication requirement should be amended to eliminate the opt out exception for inventors who forego foreign patent rights and to require publication of the claims filed by the twelve month period prescribed above. Publication of pending applications permits manufacturers to research the patent landscape so as to make informed decisions regarding whether to invest resources in a certain technology, design around that technology, or approach the patent applicant for a license on reasonable terms before committing significant capital and resources. Requiring the publication of the inventor's broadest claims permits a manufacturer to examine them and learn the maximum potential scope of the claims of any patent that might issue from that application. Permitting an exception to the

publication requirement or avoiding the publication of broadest claims not only thwarts the important analysis described above but also provides "inventors of patents" a cloak under which to secretly tailor patent claims.

35 U.S.C. § 122 governs the confidential status of applications and the publication of patent applications. To require that the claims be published with the application, 35 U.S.C. § 122(b)(1)(B) should be amended as follows (additions in italics):

(B) No information concerning published patent applications shall be made available to the public except as the Director determines; provided, however, that at least all claims submitted within 12 months from the earliest filing date for which a benefit is sought under this title shall be published either with the application, or separately therefrom if the application was published earlier at the request of the applicant pursuant to subparagraph 1(A).

Section 122 should be further amended by striking subparagraph 122(b)(2)(B) in its entirety to eliminate the opt out exception from the publication requirement for applicants who chose to not pursue foreign patent rights.

## B. Improper Litigation Leverage

Another area of abuse relates to the ability of patent plaintiffs to, in effect, extort payments from manufacturing targets by leveraging significant judge-made advantages in the patent litigation process. When plaintiffs prevail at trial, the trial court virtually automatically enters an immediate injunction shutting down a defendant's business even though the applicable statute clearly requires that "principles of equity" be weighed. Moreover, plaintiffs enjoy a presumption that a patent is valid that can only be overcome by defendants proving that the patent is invalid by "clear and convincing evidence" - a very tall burden created by the courts. In the face of this significant litigation leverage and given the company business at stake, defendants often are compelled to enter into an expensive license rather than challenge the patent.

As noted above, the patent system encourages investment in research, development, and infrastructure that brings the benefits of innovation to the public. As long as an inventor's ability to obtain a just reward is secure, the incentive to innovate intended by the patent system is preserved. Where the patent holder manufactures products under the patent, the reward typically takes the form of an ability to sell the product to the exclusion of other manufacturers. If the patent is infringed, the manufacturing patentee can recover lost profits or other damages. Where the patent holder does not manufacture or sell a patented product, then the award typically takes the form of money exchanged for the patented technology since there is no benefit to the patent holder of excluding the manufacturer.

Current law draws no distinction between these two types of patent plaintiffs and offers, without analysis, the same remedies to both. When a patent plaintiff prevails, courts must consider whether to permanently enjoin the defendant from practicing the infringing activity. Injunctions may be granted only "in accordance with the principles of equity." Historically, courts addressing the issue of injunctions in many different civil contexts have satisfied this requirement by performing an "equitable balancing test" to assess the level of harm that would come to the plaintiff if an injunction did not issue and to weigh that against the harm the defendant would suffer if an injunction did issue. In patent infringement cases, as in other injunction situations, courts must find a patent owner's harm to be "irreparable" before an injunction is appropriate. In recent years, courts in patent cases simply have shortcut the analysis and virtually automatically granted injunctive relief by presuming that the patentee will suffer irreparable harm if an injunction does not issue.

However, there is simply no basis for courts to ignore a balance-of-harm analysis. Automatic entry of a permanent injunction against an infringer is not necessary to implement the Constitutional and statutory purpose of the patent system. That purpose is satisfied as long as the patentee receives fair compensation for infringement. The patent laws should ensure that patent owners, particularly those that do not practice their own inventions, are not automatically entitled to an injunction against manufacturers. Those who use patents merely to collect royalties should be entitled only to collect monetary damages from infringers and not to shut down companies who have taken the entrepreneurial risk of developing, manufacturing, and selling innovative products.

Patent owners also profit from an unjust advantage over manufacturing targets because of the significant hurdle defendants face in invalidating patents. Patents issued by the Patent and Trademark Office are presumed valid. To

overcome that presumption, defendants must prove that the patent is invalid by "clear and convincing evidence." That high standard clearly is unjustified given the way in which applications are evaluated and patents are issued. Inventors convince an examiner in the Patent and Trademark Office of the patentability of the invention without any input from outside parties. A number of factors dictate that a strong presumption of a patent's validity is inappropriate: the Patent and Trademark office is underfunded; patent examiners have limited time to evaluate applications and must search for prior art themselves; a claimed invention is presumed to be patentable unless the examiner can prove otherwise; and, the Patent and Trademark Office allows patents based on a "preponderance of evidence" standard.

The presumption of validity of a patent and invalidity defenses are described in section 282 of the Patent Statute. Nothing in section 282 mandates "clear and convincing evidence" to overcome the presumption of validity. Section 282 was originally intended as a mere "burden shifting" device requiring the challenger to first come forward with evidence of invalidity. Then, the burden shifts to the patent owner to rebut the showing by the challenger. Given the presumption, ultimately the challenger must persuade the court that the patent is invalid in light of all the evidence. Importantly, the "clear and convincing evidence" standard is a creation of the courts. Given the circumstances under which patents issue, a "preponderance of evidence" is the appropriate standard. That standard will permit targets to challenge questionable patents and will help take away inappropriate leverage from patent opportunists.

The patent laws need to be amended to redress the "litigation leverage" abuses. First, the injunction statute, 35 U.S.C. § 283, should be amended to eliminate the presumption of irreparable harm and to preclude the entry of an injunctive remedy at the conclusion of a patent case unless the court finds that it is appropriate after considering all the equities. Courts must consider the relative harm to each of the patentee and the infringer and must weigh all of the evidence tending to establish or negate the equitable factors traditionally considered relevant to irreparable harm. Accordingly, 35 U.S.C. § 283 should be amended as follows (additions in italics):

#### 35 U.S.C. § 283 Injunction

(a) The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms and conditions as the court deems reasonable.

(b) A court shall not grant an injunction under this section unless it finds that the patentee is likely to suffer irreparable harm that cannot be remedied by payment of money damages. In making or rejecting such a finding, the court shall not presume the existence of irreparable harm, but rather the court shall consider and weigh evidence, if any, tending to establish or negate any equitable factor relevant to a determination of the existence of irreparable harm.

Second, 35 U.S.C. § 282 should be amended to codify the appropriate standard for establishing the invalidity of a patent as "preponderance of the evidence." The last sentence of the first paragraph of section 282 should be amended as follows (additions in italics):

#### 35 U.S.C. § 282 Presumption of validity; defenses

A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. Notwithstanding the preceding sentence, if a claim to a composition of matter is held invalid and that claim was the basis of a determination of nonobviousness under section 103(b)(1), the process shall no longer be considered nonobvious solely on the basis of section 103(b)(1). The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity. Such burden may be satisfied by a preponderance of the evidence.

#### C. Excessive and Disproportionate Damage Awards

A final area of patent system abuse relates to excessive and disproportionate damage awards to plaintiffs in connection with a finding of patent infringement. Damages are often vastly disproportional to the actual contribution of

the supposed invention because damages are awarded based on the entire value of the product sold - even when the invention actually claimed in the patent is merely a small component of a larger, unpatented system. Additionally, if the infringement is determined to be "willful," the court may increase the damage award by as much as three times. Unfortunately, a court may punish a defendant with such treble damages even where there is no evidence that the company intentionally copied the patented invention or engaged in any sort of egregious or reprehensible conduct.

Not surprisingly, patent opportunists have pursued every means available to maximize damage claims. A common strategy employed by patent plaintiffs is to make broad and sweeping accusations of infringement against a defendant. To increase the threat, patent opportunists stretch their legal theories of patent infringement beyond what was intended in the law, including alleging that entire products or processes infringe a patent that is focused only on a small, and often insignificant, part of a larger product or process. The opportunist's goal is to generate a giant damages base and to place as great a proportion of the defendant's business and manufacturing operations under threat of injunction as possible.

Courts have struggled to find the appropriate measure for damages. In 1970, for example, one court articulated fifteen factors that should be considered in assessing the appropriate measure of damages. Some of these "Georgia-Pacific" factors weigh heavier than others and not all factors apply to every case. One important factor, however, requires the court to consider "the portion of the realizable profit that should be credited to the invention as distinguished from any non-patented elements, manufacturing process, business risks or significant features or improvements added by the infringer."

In response, inventors have learned to abuse the patent system and increase leverage against manufacturers by pursuing "system claims" in the Patent and Trademark Office. These clever claims insert the crux of the predator's "innovation" into much larger contexts than that to which the inventor is rightfully entitled. For example, the abuser may actually have invented a hinge mechanism, but draws the patent claim to a door including the hinge mechanism. In this example, the door is well known to, and long in use by, the public, but in the subsequent litigation, the patent predator claims entitlement to, and the court awards, damages based on the entire value of the door rather than on the value of the innovative hinge. Faced with these broad patent claims issued by the Patent and Trademark Office, courts have defaulted to a damages base that includes the value of the entire structure or process containing numerous features even though only one of those features is the patented invention (sometimes referred to as the "entire market value rule").

On top of disproportionate damages claims, defendants typically are faced with allegations of "willful" infringement and the threat of triple damages. In the early 1980's, the Court of Appeals for the Federal Circuit created a "duty of due care" for manufacturers who are accused of infringement to obtain an opinion of independent counsel. Under that duty, manufacturers accused of infringement must investigate the scope of the patent and form a good-faith belief that it was invalid or that it was not infringed. That obligation led to the application of a harmful adverse inference in litigation if the accused manufacturer either failed to obtain an opinion, or, in cases where an opinion was obtained, elected not to rely on the opinion as a defense to an accusation of willful infringement (a defense that requires the defendant to waive the attorney-client privilege with respect to any advice contained in the opinion).

Many manufacturers are routinely bombarded with letters alleging infringement (sometimes referred to as "notice letters"). The companies must make the difficult choice of whether to retain patent lawyers to provide an opinion of counsel for such notice letters. Often the infringement claim is weak or the validity of the patent is dubious at best, and each opinion is expensive. On the other hand, if companies choose to forego obtaining an opinion for any of a number of reasons, they face the daunting prospect of a willful infringement finding at trial (even in a closely contested case).

Because of the inequities associated with the adverse inference and outcries by patent targets, the Court of Appeals for the Federal Circuit recently reconsidered the issue. Although the court did away with adverse inferences, it did not do away with the duty of due care. Accordingly, substantial confusion remains on the extent to which the obligation to obtain an opinion of counsel remains. The failure of the infringer to have consulted with counsel likely will still be called to the jury's attention, and the jury may still decide that the defendant's actions in disregard of the patent owners rights should be punished. To eliminate the need for such wasteful, inefficient, and expensive practices, legislative reform is needed to remove the court-created "duty of due care."

Some patent reform proposals have suggested that a finding of willful infringement should be condition upon the infringer receiving notice sufficient to trigger declaratory judgment jurisdiction and failing to get an opinion of counsel. However, that solution is problematic because the threshold for declaratory judgment jurisdiction is a moving target, and because patent owners ultimately will simply craft a letter that meets the requirements. Instead, the issue of willful infringement should focus on the infringer's conduct, and not on the skill the patent holder uses to put the infringer on notice.

Willful infringement is merely a predicate act to the enhancement of damages (under 35 U.S.C. § 284) and enhanced damages are punitive in nature. As in other contexts, to justify a punitive remedy, conduct must rise to the level of "egregious or reprehensible." Accordingly, the damages statute should be amended to focus on whether the defendants conduct at the time it initiated the infringing activity was "egregious or reprehensible." Defendants who are put on notice may still choose to rely on an opinion of counsel, and the court will consider that as part of the totality of circumstances of the behavior, but an opinion of counsel no longer should be required to avoid a finding of willful infringement.

The patent laws need to be amended to redress the "excessive damages" abuse. First, damages should be limited to the proportion to the value directly attributable to the invention rather than the larger system or process in which the patented contribution resides. 35 U.S.C. §284 should be amended by adding the following to the end of the first paragraph (additions in *italics*):

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court. Whenever the invention is incorporated into, or is made part of, a method or apparatus otherwise known in the art or attributable to others, or is an improved method or apparatus including within it elements otherwise known in the art, then any award of a reasonable royalty or other damages shall be based only upon such portion of the total value of the method or apparatus as is attributable to said invention alone and shall not include value attributable to the method, apparatus or elements otherwise known in the art or attributable to others.

Second, willful infringement should be addressed so that enhanced damages are possible only upon an express finding of egregious or reprehensible conduct. 35 U.S.C. §284 should be amended by adding the following to the end of the second paragraph (additions in *italics*):

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed. Increased damages under this paragraph are punitive in nature and may be awarded only upon a finding of egregious or reprehensible conduct. In considering the existence or absence of egregious or reprehensible conduct, the infringer's failure to exercise due care to avoid infringement shall not be considered. Only the infringer's knowledge and conduct as of the time it initiated its infringing activity shall be relevant. Increased damages under this paragraph shall not apply to provisional rights under section 154(d) of this title.

The presentation of evidence in support of a finding of egregious or reprehensible conduct shall be to the court, rather than to the jury, and only after a finding of liability has been entered against the infringer.

The court may receive expert testimony as an aid to the determination of damages or on what royalty would be reasonable under the circumstances.

### III. CONCLUSION

The growing abuses of the patent system have led to a unique form of litigation abuse that facilitates preying on the very implementers of technology upon which the economy relies. The relative "strength" of the patents that are the subject of these suits, or the relative contribution to the public store of knowledge, rarely plays itself out in court as few innovators can afford to risk years of research expenditures and significant investments in plant and equipment in protracted patent litigation.

Targeted manufacturers face a Hobson's choice - daunting litigation costs, evidentiary standards slanted toward patent owners, exorbitant damage awards, and virtually certain injunctive relief, on the one hand, and predatory licensing demands on the other. As a result, the innovative manufacturer is forced to avoid or settle even unmeritorious patent lawsuits by paying high licensing fees. The resulting displacement of otherwise productive research and development investments from manufacturing companies to patent predators increases overall consumer costs, delays the introduction of new technologies to the market place, lessens competition, and ultimately puts U.S. manufacturing jobs at risk. Patent reform legislation is essential to curb abuses, alleviate the hold-up of innovative manufactures, and protect the integrity of the patent system.