



Quanta Computer v. LG Electronics:

The U.S. Supreme Court
Breathes New Life Into the
Patent Exhaustion Defense

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On June 9, 2008, the U.S. Supreme Court issued its decision in *Quanta Computer, Inc. v. LG Electronics, Inc.*, No. 06-937, 2008 WL 2329719, at *1 (U.S. June 9, 2008), the most recent in a string of patent cases decided by the Court over the past several years. The case specifically concerned application of the “patent exhaustion” doctrine as a defense to patent infringement. At issue were: (1) whether the sale of a product can exhaust a patent holder’s rights in a patented method; (2) whether the sale of a product that substantially embodies but does not contain all of the elements of a patented system or method can exhaust the patent holder’s rights in that system or method; and (3) whether the sales at issue triggered exhaustion despite an attempt by the patentee to condition the sales (*i.e.*, whether the sales were authorized).

In reversing the federal circuit, the Supreme Court held that the patent exhaustion defense applies to patented method claims and when an authorized/licensed sale of a product substantially embodies a patented invention. In addition, the Court found that the sales at issue triggered exhaustion despite the patentee’s attempt to limit downstream use of the products.

The *Quanta* ruling continues the Supreme Court’s trend of reversing the federal circuit in patent cases and readjusting the balance between patent owners and accused infringers. In *Quanta*, the Court potentially precluded a patentee’s ability to succeed in an infringement action against downstream users of a component that substantially embodies a larger patented invention. Moreover, *Quanta* will almost certainly result in patent owners’ focusing more on the structure of patent-licensing transactions, especially the explicit scope of the license granted.

What follows is a brief introduction of the patent exhaustion doctrine and how courts historically have applied the doctrine. Next is an explanation of the *Quanta* case as it developed in the lower courts and an analysis of the Supreme Court’s opinion. Finally, we consider how the Supreme Court’s decision in *Quanta* may affect patent litigation and patent-licensing transactions in the future.

THE PATENT EXHAUSTION DOCTRINE—AN INTRODUCTION

The patent exhaustion doctrine (also known as the “first-sale doctrine”) is a judicially created defense to patent infringement, first articulated by the Supreme Court more than a

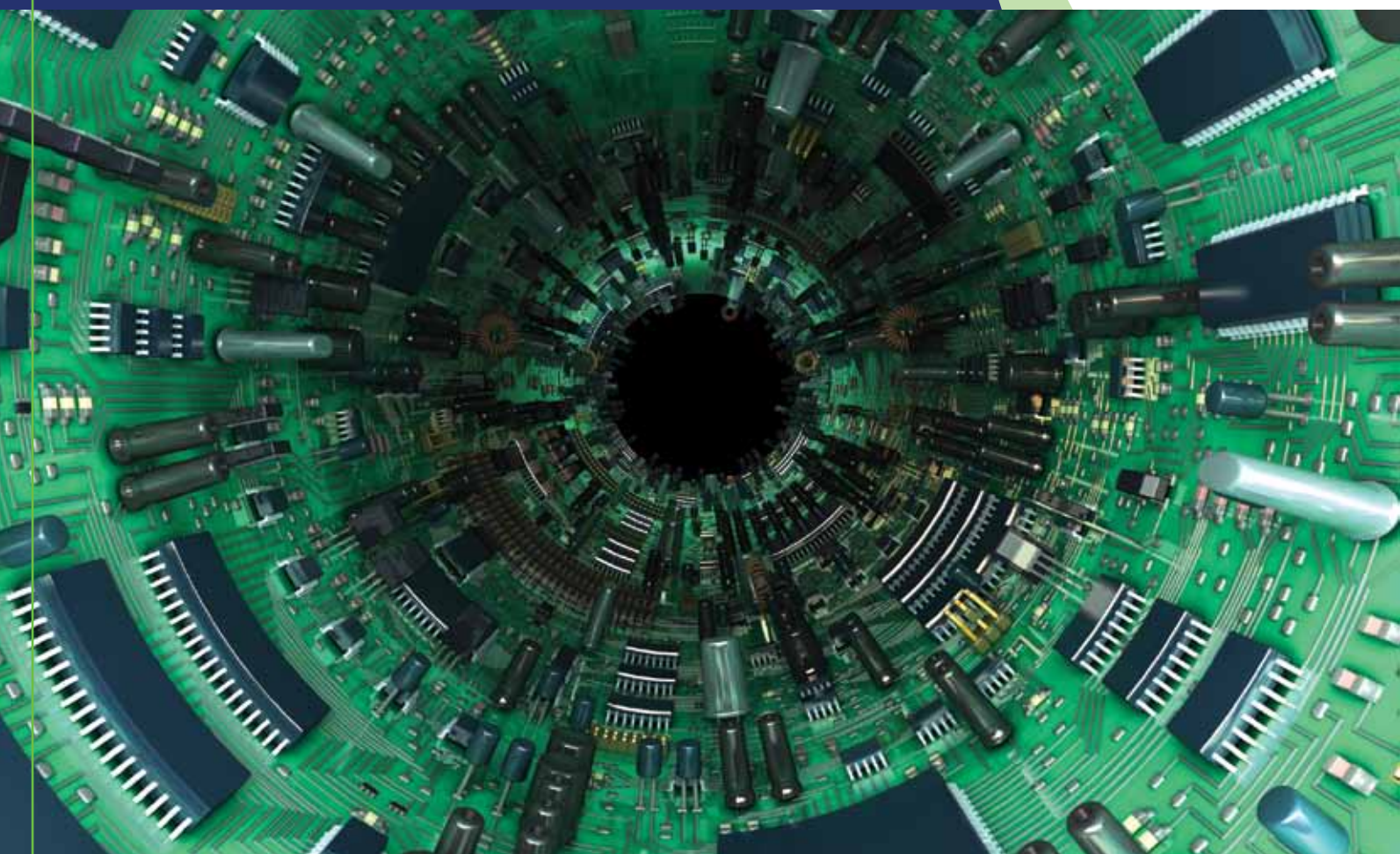
century ago. The doctrine follows from the premise that a patent owner is entitled to a single royalty for each patented device. That is, by selling or authorizing sales of a patented device, the patent owner has bargained for and received an amount equal to the value of the patent rights that attach to the device. Thus, while the rights conveyed by a patent enable its owner to exclude others from using the patented device, once the patent owner engages in or authorizes an unrestricted sale of the patented device, such exclusionary rights are terminated with respect to that device. Put simply, the patent owner’s rights are “exhausted” and cannot be asserted against any downstream purchasers, sellers, or users of the device.

The Federal Circuit and district courts established a number of exceptions to the exhaustion doctrine in the years prior to *Quanta*. For example, patent exhaustion did not occur where the patent owner imposed, by contract and at the time of sale, certain conditions on the downstream use of the patented product. Such contractual conditions generally were permitted unless they violated some law or policy, such as antitrust law, contract law, or patent misuse, because courts assumed that the parties negotiated a price that reflected only the value of the use contemplated with the conditions. Courts also previously held that the exhaustion doctrine did not apply to the practice of method claims. In addition to these exceptions, courts were faced with the issue of whether the patent exhaustion doctrine applied when the article sold was an unfinished part or component of a patented system or product (*e.g.*, an unfinished eyeglass lens or a part to a computer), including cases where such an unfinished part or component had no reasonable use other than incorporation into the larger patented system or product. These exceptions and this issue took center stage in *Quanta*.

THE PATENT EXHAUSTION DOCTRINE—A BRIEF HISTORY

The earliest cases articulating what would come to be known as the patent exhaustion doctrine were issued by the Supreme Court in the mid- to late 19th century. In *Bloomer v. McQuewan*, purchasers of licenses to sell and use wood-planing machines sought to continue using their licenses through an extended patent term. 14 How. 539 (1853). The Court held that once the machines were sold, they were no longer within the patent monopoly, so the patent term was irrelevant to the purchaser’s rights. Additionally, in *Adams v. Burke*, the issue before the Court was whether a subsequent purchaser of patented coffin lids, which were assigned to

The main functions of a computer are carried out by a microprocessor. The microprocessor is connected by a set of wires to a chipset. The chipset transfers data between the microprocessor and other devices, such as the keyboard, monitor, hard drive, and memory.



a seller for use within a 10-mile radius of Boston, could use the lids outside the 10-mile radius. 17 Wall. 453 (1873). There, the Court held that the purchaser of the coffin lids acquired the right to use them—regardless of location—when they were purchased from the assignee. These cases helped establish the theoretical foundation of the patent exhaustion doctrine.

Over the years, the patent exhaustion doctrine was expanded to apply not only to patented articles, but also to patented combinations or systems whose components were being sold with the patentee's authorization. The earliest case addressing the patent exhaustion doctrine as it applies to combination products was the 1942

Supreme Court case of *United States v. Univis Lens Co.*, 316 U.S. 241 (1942). In *Univis*, Univis Lens Co. owned numerous patents relating to eyeglass lenses, including patents relating to the shape, size, composition, and disposition of both unfinished and finished lenses. Univis licensed Lens Co. to manufacture lens blanks and sell them to other licensees. These licensees, composed of wholesalers and retailers, would purchase the unfinished lenses from Lens Co. and grind them to meet the prescription needs of their customers. The U.S. government brought suit under the Sherman Act for antitrust violations when Univis required that all licensees abide by a price-maintenance program. As a defense, Univis claimed that its ability to control lens prices was

within its patent rights, because the licensees used Univis's patented devices to finish the eye-glass lenses. Although the case focused on anti-trust issues, the Supreme Court based its opinion on Univis's patent rights. Specifically, the Court held that where a patentee has sold an unfinished article that "embodies essential features of [the] patented invention" and is destined to be finished by a purchaser, "he has sold the invention so far as it is or may be embodied in that particular article." That is, "the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly." Applying this principle, even if Univis's patent claims included the finishing of the lens blanks, each blank "embodied essential features of the patented device," and the unfinished blanks were without utility until they were made into finished lenses. Accordingly, Univis's patent rights were exhausted. Therefore, under *Univis*, the acquisition of an unfinished article that essentially embodies a patented invention exhausted a patent owner's rights in that invention.

Following *Univis*, district court decisions expanded the scope of the patent exhaustion doctrine in the context of combination products. In *Cyril Corp. v. Intel Corp.*, Intel owned a patent claiming both a microprocessor and a combination of the microprocessor with external memory. 846 F. Supp. 522 (E.D. Tex. 1994). Intel licensed to Texas Instruments and SGS-Thomson Microelectronics the right to make, use, and sell the microprocessors. These microprocessors were then sold to Cyril Corp., which combined them with external memory. Intel claimed that this combination infringed its patent. Intel conceded that the sale of the microprocessors exhausted its rights in the microprocessors themselves but argued that its rights in the combination with external memory were not exhausted. The court found that because the microprocessors were of no use unless they were combined with external memory, the sale of the microprocessors included the right to use them for their intended normal purpose. Hence, the sale of the microprocessors exhausted Intel's rights in the patent,

including the claim comprising a combination of the microprocessors with external memory. Other district courts have followed suit, holding that the test to determine whether to apply the patent exhaustion doctrine involves considering the "reasonable uses" of the article sold. In other words, if the article can be put to some reasonable use beyond the patented combination, there will be no exhaustion of patent rights in the combination.

Despite the patent exhaustion doctrine, a patentee's rights are not always exhausted upon the sale of an article. It is possible for a patentee to fractionalize the property interests inherent in a patent and convey only limited interests to others by selling products subject to conditions. Indeed, the Federal Circuit has stated that the patent exhaustion doctrine does not apply to conditional or restricted sales. However, the conditions or restrictions must be reasonably within the patent grant, meaning that the conditions or restrictions cannot violate antitrust or contract law or represent patent misuse. The Federal Circuit's logic for upholding express conditions in sales and licenses is that the negotiated price is the value of the use rights conveyed.

However, there is conflicting precedent in the district courts as to whether a license limitation between a licensor and licensee can guide the terms of a subsequent sale between the licensee and its customers.

Some courts require that customers have notice of the limitation, whether that notice be actual assent by the customer or some form of constructive notice, such as a conspicuous notice placed on an article's label or tag. Conversely, at least one court has held that notification of the purchaser is irrelevant in its analysis.

The patent exhaustion doctrine has also been raised as a defense in infringement cases involving method claims. In *Ethyl Gasoline Corp. v. United States*, the Supreme Court applied the patent exhaustion doctrine to a claim for a method

The court found that because the microprocessors were of no use unless they were combined with external memory, the sale of the microprocessors included the right to use them for their intended normal purpose.

of using a patented fuel in combustion motors. 309 U.S. 436 (1940). The Court found that the sale of the patented fuel exhausted the rights in the method claim. Additionally, one patent involved in *Univis* was a pure method patent directed to methods for finishing lenses, but it is unclear whether this method patent was included in the Court's exhaustion analysis. In any event, *Ethyl Gasoline* and *Univis* were decided in the 1940s, and there have been no recent Supreme Court cases addressing the patent exhaustion doctrine as it applies to method claims (that is, until *Quanta*). While the Supreme Court ruled even before *Quanta* that patent exhaustion applied to method claims, the Federal Circuit recently held that the patent exhaustion doctrine is inapplicable to method claims. For example, in 2006, the Federal Circuit held in *LG Electronics, Inc. v. Bizcom Electronics* that the patent exhaustion doctrine was applicable to patented microprocessors but not to method claims for using the microprocessors. 453 F.3d 1364 (Fed. Cir. 2006). This tension between Supreme Court and Federal Circuit precedent was resolved in *Quanta*.

THE TRIAL COURT AND FEDERAL CIRCUIT DECISIONS

LG Electronics ("LGE") owns the rights to a number of patents relating to computer technology, including the three patents eventually at issue in the Supreme Court's decision, United States Patent Nos. 4,939,641 ("the '641 patent"); 5,379,379 ("the '379 patent"); and 5,077,733 ("the '733 patent"). The main functions of a computer are carried out by a microprocessor (central processing unit). The microprocessor is connected by a set of wires (bus) to a chipset. The chipset transfers data between the microprocessor and other devices, such as the keyboard, monitor, hard drive, and memory.

The '641 and '379 patents relate to the use of memory and to ensuring that up-to-date data are retrieved. Data processed by a computer are mainly stored in random access memory (main memory), while frequently accessed data are stored in cache memory, which permits faster access and is often located on the microprocessor. The '641 patent discloses a system for ensuring that in circumstances where both main memory and cache memory are used (and therefore one memory location might have out-of-date data), the most current data are retrieved from main memory. The '379 patent discloses a system and method for organizing read and write requests to main memory, wherein the computer executes read requests until it needs data for which there is an outstanding write request. It then executes that write

request in order to ensure that the read request results in the retrieval of the most up-to-date data.

The '733 patent provides methods for allowing multiple devices to share a bus without allowing one device to monopolize the bus.

LGE granted Intel a license to "make, use, sell (directly or indirectly), offer to sell, import or otherwise dispose of" its microprocessors and chipsets that practice a number of LGE's patents, including the '641, '379, and '733 patents. The LGE–Intel license transaction involved a License Agreement and a separate Master Agreement. The License Agreement expressly disclaimed any license directly to third parties (e.g., Intel's customers) to combine licensed Intel microprocessors or chipsets with any non-Intel or non-Quanta components or products (i.e., to make a computer).

Under the Master Agreement, Intel was required to send notice to its customers advising them of the license disclaimer discussed above. Intel sent such notice to those who purchased its licensed microprocessors and chipsets, including Quanta and other computer manufacturers. Notably, though, the Master Agreement also provided that "a breach of this Agreement shall have no effect on and shall not be grounds for termination of the Patent License."

Despite receiving license-disclaimer notice from Intel, Quanta and other computer manufacturers used the licensed Intel microprocessors and chipsets in combination with other non-Intel components to make computer systems that were then sold to major computer sellers such as Dell, Gateway, and Hewlett-Packard. LGE subsequently sued Quanta and other computer manufacturers for infringement of LGE's patents concerning computer systems.

In May 2002, several defendants, including Quanta, moved for summary judgment of noninfringement based on the patent exhaustion doctrine. Specifically, those defendants argued that LGE exhausted its patent rights based on LGE's license to Intel and/or Intel's sale of its licensed microprocessors and chipsets to the defendants. LGE argued, however, that the patent exhaustion doctrine did not apply, because the licensed products sold by Intel did not read on/infringe any of the patents at issue (directed to combinations or systems incorporating or methods involving the use of such products). The district court ruled in favor of the defendants, holding

that the license or authorized sale of an essential element of a patented device may exhaust the patentee's statutory right to exclude others from making, using, or selling that device. In so holding, the court found that the defendants successfully showed that the microprocessors and chipsets had no reasonable noninfringing use, since the only reasonable use was to incorporate them into computers, such as those made and sold by the defendants.

Following the district court's grant of summary judgment, the remaining defendants moved for summary judgment on the same grounds. The district court treated LGE's opposition to this motion as a request for reconsideration of the first ruling based in part on LGE's new arguments that: (1) Intel's sale of microprocessors and chipsets did not exhaust LGE's patent rights because the sale was conditional; and (2) there could be no exhaustion as to any of the method claims. The district court found that the notice from Intel to the defendants was insufficient to create a conditional sale. Accordingly, the exhaustion doctrine applied to the patented product claims. The district court, however, agreed with LGE that the exhaustion doctrine did not apply to the method claims.

On appeal, the Federal Circuit agreed with the district court that the patent exhaustion doctrine did not apply to method claims. The Federal Circuit, however, reversed the district court's ruling that the patent exhaustion doctrine applied to LGE's product claims, finding that Intel's sale of the licensed component microprocessors and chipsets was conditional, based on provisions within the LGE–Intel agreements, and because Intel's customers were expressly put on notice that they were prohibited from combining the licensed microprocessors with non-Intel components. Quanta and several other defendants subsequently appealed to the Supreme Court, arguing that the Federal Circuit's decision was directly in conflict with prior Supreme Court precedent concerning the patent exhaustion doctrine, namely, the Court's decisions in *Univis* and *Ethyl Gasoline*. Certiorari was granted on September 25, 2007, and oral argument was heard by the Court on January 16, 2008.

On appeal to the Supreme Court, the *Quanta* case presented three primary questions: (1) whether the sale of a product can exhaust a patent holder's rights in a patented method; (2) whether the sale of a product that substantially embodies but does not contain all of the elements of a

patented system or method can exhaust the patent holder's rights in that system or method; and (3) whether Intel's sale of its licensed components to Quanta and others was authorized, such that the patent exhaustion doctrine applied.

In a unanimous opinion authored by Justice Thomas, the Supreme Court answered “yes” to all three of these questions. Accordingly, the Supreme Court reversed the Federal Circuit's decision and held that LGE's patent rights were exhausted as against Quanta and the other defendants.

THE SUPREME COURT'S DECISION

Within its decision, the Supreme Court provided a brief history of the patent exhaustion doctrine. The Court began with its first-ever discussion of the defense, the 1853 case of *Bloomer v. McQuewan* (discussed above). It ended by discussing its most recent application of the patent exhaustion doctrine, the 1942 *Univis* decision (also discussed above). The Court found *Univis* particularly applicable to the facts at bar. With this historical background in mind, the Court then turned to the three main issues raised in *Quanta*.

First, the Court addressed whether the patent exhaustion doctrine applies to method claims. Citing *Ethyl Gasoline*, the Court observed that it “has repeatedly held that method patents were exhausted by the sale of an item that embodied the method.” It also acknowledged a concern that exempting method claims from the patent exhaustion defense would “seriously undermine the exhaustion doctrine,” because patentees could “simply draft their patent claims to describe a method rather than an apparatus” and thereby “shield practically any patented item from exhaustion.” Thus, the Court rejected the Federal Circuit's categorical exclusion of method claims from the scope of the patent exhaustion doctrine, holding that method claims can be exhausted by the sale of products.

Second, the Court addressed the issue of when patent exhaustion applies to situations involving the sale of a component that does not contain all of the elements of the patented invention. Here the Court relied on its previous decision in *Univis* and stated that the sale of such components can trigger patent exhaustion of combination claims when the component “substantially embodies the patent.” This occurs when two conditions exist: (1) “when [the component's] only reasonable and intended use [is] to practice the

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patent”; and (2) when the component “constitute[s] a material part of the patented invention and all but completely practice[s] the patent.”

Using the facts of *Univis* as a guide, the Court found that Intel’s licensed microprocessors and chipsets—even though they were components of the patent claims at issue—had no reasonable use other than for incorporation within the accused computer systems that practiced LGE’s patents. As the Supreme Court stated, “A microprocessor or chipset cannot function until it is connected to buses and memory.” While LGE argued that Intel’s licensed components could be used in noninfringing ways (e.g., by being sold overseas, where the U.S. patent laws have no force, or by being used as replacement parts), the Supreme Court rejected LGE’s arguments, stating that the proper question is “whether the product is ‘capable of use only in practicing the patent,’ not whether those uses are infringing.” In other words, “[w]hether [sold] outside the country or functioning as replacement parts, the Intel Products would still be practicing the patent, even if not infringing it.”

The Court went on to conclude that the licensed Intel products “constitute a material part of the patented invention and all but completely practice the invention,” because the only step necessary to practice LGE’s patents is the “application of common processes or the addition of standard parts” (i.e., combining the licensed microprocessors and chipsets with memory and buses, standard components in a computer system that enable the microprocessor and chipset to function properly). As in *Univis*, where the finishing of the lenses was incidental to the invention, in *Quanta*, everything inventive about each LGE patent was embodied in Intel’s products, not in the combination with buses and memory. Accordingly, because the only reasonable use of Intel’s products was to practice the patent claims at issue and the products all but completely practiced the patent claims at issue, the Court held that the patent exhaustion doctrine could apply.

Finally, the Court examined whether Intel’s sale of its microprocessors and chipsets to Quanta and others actually exhausted LGE’s patent rights. Because exhaustion is triggered only by a sale authorized by the patentee, this issue

depended on whether LGE authorized Intel’s sale of its licensed microprocessors and chipsets to the defendants. LGE argued that there was no authorized sale, because the License Agreement did not permit Intel to sell its licensed products for use in combination with non-Intel products. The Court disagreed with LGE, finding that the Intel–LGE License Agreement “broadly permitted Intel to ‘make, use, [or] sell’ products free of LGE’s patent claims.” The Court found nothing in the License Agreement restricting Intel’s right to sell its licensed products to companies with plans to combine them with non-Intel products. The only arguable condition appeared in the Master Agreement and required Intel to provide notice to its customers that LGE had not licensed those customers any rights to combinations of licensed Intel products with non-Intel products. However, Intel provided such notice, thereby satisfying its contractual obligations regardless of what Quanta and the other defendants did with the licensed Intel products. Moreover, because the notice requirement appeared only in the Master Agreement, which also provided that a breach of the Master Agreement would not affect Intel’s license, the Court concluded that Intel’s authority to sell was not conditioned on such notice. As the Court succinctly stated, “Intel’s authority to sell its products embodying the LGE Patents was not conditioned on the notice or on Quanta’s decision to abide by LGE’s directions in that notice.” Accordingly, the Court found that because Intel was authorized to sell the products and no conditions limited that authority, LGE’s patent rights were exhausted by Intel’s sale to Quanta and the other defendants.

In finding for the defendants, the Court also dismissed LGE’s reliance on the fact that the License Agreement disclaimed any license to third parties. The Court explained that whether any third parties received an implied license was irrelevant to patent exhaustion. Instead, “exhaustion turn[ed] only on Intel’s own license to sell products practicing the LGE Patents.” Because Intel’s sale was authorized, exhaustion applied.

THE PRACTICAL EFFECTS OF, AND QUESTIONS RAISED BY, QUANTA

The short- and long-term implications of *Quanta* are likely to be significant in the context of both patent litigation and patent-licensing transactions.

From a litigation perspective, *Quanta* may affect a patent owner’s success when bringing an infringement action

against downstream users of a licensed product or component that is incorporated into a larger patented system or involved in a patented method. Even so, patent owners may still have forceful arguments against claims of exhaustion. For example, the patentee may argue that the licensed component has some reasonable use that does not practice the patent or that the component is not a material part of the inventive part of the patented system or method, and therefore the component does not substantially embody the patent claim. (A patentee, however, must be cautious when making such arguments, to ensure that they do not undermine any contributory-infringement claims the patentee may have raised.) Where the patentee has granted a license, the patentee may also argue that the sale was outside the scope of the license grant or in violation of a condition therein and therefore unauthorized. Moreover, even if patent exhaustion were to apply, the patent owner may, where the license allows, still seek redress through a breach-of-contract claim, an option explicitly recognized in the Court's opinion.

The effect of *Quanta* may reverberate even more in the context of patent-licensing transactions. Despite the outcome in *Quanta*, it is important to understand that the Supreme Court did not eliminate a patentee's ability to create restrictions or conditions within a license agreement that might avoid later application of the patent exhaustion defense. In fact, the Supreme Court indicated that Intel's sale might not have been authorized—and thus, the patent exhaustion doctrine might not have applied—if the license grant to Intel had explicitly excluded Intel's right to sell products to customers who later combined the licensed Intel products with non-Intel products downstream. A patent owner can learn from *Quanta* to structure licenses to ensure that the license grant offered is as narrow and circumscribed as possible, such as through field-of-use and market limitations. Put simply, unlike what was done in *Quanta*, a patent owner must be careful to explicitly limit the scope of a license in a way that ensures the patent owner receives the compensation it expects from the sale of each licensed product.

From either perspective—litigation or transactional—*Quanta* leaves a number of unanswered questions. Most notably, what will constitute a “substantial embodiment” of the patent so that the exhaustion doctrine applies? From the Court's discussion of its prior *Univis* decision, we know that “each lens blank embodied essential features of the patented device”

and its only use was in “practicing the patent” (i.e., finishing the lenses). Similarly, we know that the Intel microprocessors and chipsets in *Quanta* “substantially embodied the LGE Patents because they had no reasonable noninfringing use and included all the inventive aspects of the patented methods.” But it is not clear that those two conditions (no reasonable noninfringing use and including all “inventive” aspects of the patent) are going to be necessary conditions for a finding of substantial embodiment. In addition, it is unclear what uses can qualify as “reasonable noninfringing” uses, especially given the Court's statement that the question is “whether the product is ‘capable of use only in practicing the patent,’ not whether those uses are infringing.” Only case-by-case development by the Federal Circuit and lower federal courts will answer these questions. At the time this article went to press, more than five months had passed since the Supreme Court's decision; however, neither the Federal Circuit nor the lower federal courts have so far issued any decisions that offer substantive guidance on these issues.

CONCLUSION

The *Quanta* decision marks yet another Supreme Court reversal of a Federal Circuit patent decision. Once again, the Supreme Court appears to be rebalancing the patent laws in a way different from the balance the Federal Circuit has struck over the years. Nevertheless, as with every Supreme Court decision, it will be important to see how the Federal Circuit and district courts interpret *Quanta* and, most important, under what circumstances they will uphold conditional sales and licenses and refuse to apply the patent exhaustion doctrine. ►►

N.B.: Jones Day filed an amicus curiae brief on behalf of IBM.

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