Comparative Analysis of Qualcomm Case regarding its Duty in Standard-Setting Organization and Possible Antitrust Claims Brought by its’ Competitors in U.S. and E.U.

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"COMPARATIVE ANALYSIS OF QUALCOMM CASE REGARDING ITS DUTY IN
STANDARD-SETTING ORGANIZATION AND POSSIBLE ANTITRUST CLAIMS
BROUGHT BY ITS' COMPETITORS IN U.S. AND E.U."

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I.

**WHAT IS A STANDARD-SETTING ORGANIZATION?**

Standard-setting organizations (“SSOs”) is a general term of a group of industry having similar products and technologies. There are more than 30 SSOs around the world. These groups share a common goal to set standards that promote interoperability between products made by different manufacturers.¹ These standards will help one manufacturer’s product interface with other manufacturers’ product or so called “compatibility standards”. Compatibility standards are crucial in industries that have network effects such as computers and telecommunications industry. SSOs generally aim to enhance economic efficiency that has beneficial effects on both competitors and consumers by a means of creating product uniformity through standardization and making it easier for new producers to enter into the market when standards exist. In network markets, the value of a product depends on how many consumers use the same or a compatible product, for example, in cell phone network, the value of the product is increased by the number of subscribers on the same network, if chipset manufacturers can produce a chipset that permits a dual-mode approach incorporating both GSM and CDMA standards, it will certainly carry substantial consumer benefits.

However, standard-setting may raise anticompetitive, unfair competition, fraud issues and trade secret rights when one of the members succeeds in incorporating its intellectual property (“IP”) right into standards without prior disclosure to the SSOs. If one company’s IP rights are incorporated in a proposed industry standard, that company

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can determine who can manufacture and sell products implementing the standard and also impose royalty fee on any member who wants to use the standard. This could hinder or obstruct competition by lessening incentives to develop, excluding better technologies from entering the market and reducing consumer choices.

Thus, there should be a bright line rule that helps prevent these complicated problems. One possible way is to make SSO rules precise and enforceable in regard to a duty to disclose, clarifying the meaning of a patent “related to” or “involved in” the standard, and also clarifying the conditions licensing on “fair reasonable and non-discriminatory terms.”

II. WHEN ARE DISCLOSURE OBLIGATIONS REQUIRED?

In general, many Standard Settings Organizations have a written patent policy encouraging the adoption of standards free of rights of a patent holder. Moreover, the SSOs mostly require members to disclose patent rights but not pending patent applications when the committee of SSO was about to adopt a proposed standard that will include any member’s proprietary technology and cover what members believe to be an open and available standard.²

² Id. at 1919,1920

In my opinion, a member has a duty to disclose its patent rights to the SSO committee when it is aware of a patent that reads on or applies to the adoption of
standards. A patent holder is required to provide an assurance to SSO in situations where patents are known to be infringed by implementation of the standard. In other words, it is the obligation of all members to disclose their patents and pending patent applications that might be involved in the standard setting process to the committee. Some might argue that to require SSO members to disclose any might be pending patent applications involving in the standard can be too broad for the members; however, in my opinion, most problems occurred because many SSOs rules do not explicitly require its members in writing to disclose such information or SSOs rules regarding disclosure ambiguity. Therefore, SSOs should clearly require members to disclose their patent rights when the members can expect that their pending patent might relate to the implementation of the standard.

III.
TO WHAT EXTEND DOES AN IP OWNER NEED TO DISCLOSE? DOES AN PATENT HOLDER HAVE A DUTY TO DISCLOSE ITS PENDING PATENT APPLICATIONS AND ALSO ITS INTENTIONS TO MODIFY PATENT APPLICATIONS?

I propose that SSOs should require the disclosure of pending patent applications, but not the disclosure of a member’s intentions to file or amend patent application. If SSOs required members to disclose their future patent applications, it could raise a patent infringement and antitrust issue in the event that SSO’s minutes of meeting are available to non-members and there are no confidentiality agreements between each member. “A member’s revelations of future intentions to file an application likely would jeopardize

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3 See Rambus Inc. v. Infineon Techs AG, 318 F. 3d 1081, 1099 (Fed. Cir. 2003) (citing a committee chairman’s testimony supporting the duty to disclose.
4 In fact, JEDEC’s rule was changed in 1993 to explicitly require its members to address pending applications, but the court found that JEDEC members knew even before 1993 that the policy was intended to cover pending applications as well as issued patents. See Rambus Inc. v. Infineon Techs AG, 164 F. Supp. 2d 743 (E.D. Va. 2001).
some foreign patent rights.” In addition, each member might become a direct competitor when discussing its market-driving innovations and its future plans and subsequently might result in antitrust problem, for example, members might cooperate among another to control price, output and finally obtain market power.

In Rambus, the Court of Appeals held that there was insufficient evidence to support Rambus’s duty to disclose its pending patent applications. The SSO only required disclosure, if application claims are necessary to practice standard and Rambus did not believe that its claim read on the standard in question. In order for Infineon to succeed in breach of duty to disclose claim against Rambus, it has to come up with clear and convincing evidence that the undisclosed claims, under which Rambus had pending patent applications, reasonably cover the particular standard under consideration by JDEC committee. In other words, Infineon has to prove that there is reasonable expectation that the standard cannot be adopted without this pending license under the undisclosed claims.

It was FTC’s view that Rambus had an implied duty to disclose its pending patent applications when such pending patents were related to the implementing standard applications when such pending patents were related to the implementing standard.

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5 Rambus Inc., 318 F. 3d at 1102
6 Mr. Meyer, one of the JEDEC committee testified that “the disclosure duty did not require members to disclose its plans to modify applications. Thus, the record supports only the conclusion that a member’s intentions to file or amend applications do not fall within the scope of JEDEC’s disclosure duty.” Id. at 1102
7 Id. at 1097
8 Id. at 1102
because its failure to disclose was likely to give Rambus monopoly power over adopted standards that incorporated its pending patent applications.9

In my opinion, although SSOs does not explicitly require members to disclose its pending patent application related to the standardization work of the committee in a written form, it should implicitly impose a duty on those members to disclose such pending patent. According to contract law principle, a contract can be formed by oral agreement. Therefore, Courts may enforce an implied contract based on sufficient factual circumstances. In Rambus, although JEDEC’s IP rule did not mention in writing about the disclosure of pending patent, I strongly support Infineon’s argument that the IP owner should be bound not only by JEDEC’s express IP policy that mentioned only issued patents, but also by the oral understanding of all members that pending patent should also be disclosed.

However, it will be more efficient in term of the burden of proof for an SSO to set out these obligations in writing. Another suggestion is that SSOs should require all members to disclose its patent, patent pending applications regardless of how likely it will be related or involved in the adoption of standards so long as all members as an agent of his company agree in writing to keep this information highly confidential.

IV.

WHAT ARE CONSEQUENCES OF THE IP OWNER’S FAILURE TO DISCLOSE?

There are two doctrines that may apply when a patent holder has failed to comply with SSO rules. First is equitable estoppel that imposes on the patent owner when violating a duty to disclose. Second is implied license that applies to the patent holder when failing to license on fair, reasonable and non-discriminatory known as “FRAND” terms.

A. Equitable Estoppel

A compelling question is should a patent holder be liable under antitrust law or under the doctrine of equitable estoppel if the patent holder merely stays silent, and does not make an affirmative misrepresentation? A short answer to this question is the patent owner can be equitably estopped even if he stays silent and does not make any affirmative misleading statements. In general, an IP owner who was a member of SSO can be estopped if it knew that there was an infringement of its patent before leaving committee, and it failed to notify of the alleged infringement of its patent to SSO before the adoption. Under this circumstance, IP owner has a duty to speak out and call attention to his patent. Therefore, its silence in circumstances where there was a duty to speak could lead to affirmative misleading statements about IP to an SSO. In other words, if the IP owner consistently represents to an SSO that its proposed standards are open or non-proprietary, it may be estopped from asserting IP rights that cover those standards.

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against other members. In re Dell Computer Corp. 121 F.T.C. 616 (1996), Dell failed to disclose its VL-bus patent before Video Electronic Standard Association (“VESA”) committee decided to implement its patent as a standard; therefore, Dell was prohibited by Federal Trade Commission (“FTC”) from enforcing its VL-bus patent against other members using such a standard. The remedy in this case is paralleled with those cases, decided under the concept of equitable estoppel, in which courts barred patent-holders from enforcing patents when they failed to properly disclose the existence of those patents.11

Moreover, the IP owner’s silence could also reasonably be interpreted as an indication that IP owner had abandoned its patent claims.12 In Stryker certainly suggests that a party who breaches an express duty may be estopped from later enforcing a patent, it also applies estoppel from silence even if IP owner has no express duty to speak. For example, if a company from time to time the IP owner demonstrates to an SSO that its proposed standard are non-proprietary and open, it may be estopped from later asserting IP rights that cover those standards. The federal circuits, however, have divided in their treatment of claims relying on silence in the marketplace because of the difficulties in proving reliance.13

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13 See e.g., B. Braun Med., Inc. v. Abbott Labs, 124 F. 3d 1419 (Fed. Cir. 1997) (forgoing liability based on silence in the marketplace; but see Scholle Corp. v. Blackhawk Molding Co., 133 F. 3d 1469 (Fed. Cir. 1998) (finding that an IP owner’s silence to disclose is not sufficient enough for an accused infringer to assert the defense of equitable estoppel)
In addition, patentee’s failure to disclose IP rights can also occur when a patentee misleads the alleged infringer to reasonably infer that the patentee has no intention to enforce its patent against the alleged infringer. In order for infringer to be successful in claiming the equitable estoppel as a defense, the infringer must show that it relied on the misleading conduct such as specific statements, action, inaction, or silence when there was an obligation to speak\textsuperscript{14} and will be materially prejudiced if the patent is enforced.\textsuperscript{15}

When the infringer succeeds in proving the equitable estoppel, it will bar the IP owner from seeking any relief from the infringer.\textsuperscript{16} As a consequence, IP owners who violate a disclosure obligation may be prevented from obtaining damages or injunctive relief against other members of SSO who are induced by the IP owners and believe that the IP owners have no patents covering the standard or will not enforce those IP rights against them. In addition, the IP owner is precluded from enforcing the patents against those implementing the relevant standard.

**B. Implied License**

Implied license occurs in the situation when an IP owner invites others to use its IP for free or when “the product sold by the patentee is not itself patented, but is necessary for use in a patented process”.\textsuperscript{17} On the other hand, if a patent holder discloses its patent and promised to license it on reasonable and non discriminatory term but later breaches the agreement to license in FRAND term, it is unlikely to apply equitable

\textsuperscript{14} A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020 (Fed Cir. 1992)
\textsuperscript{16} A.C. Aukerman, 960 F.2d at 1028
\textsuperscript{17} Lemley, supra note 1 at 1924.
estoppel as the patent owner has made a clear statement to collect royalties. Rather courts may apply an implied license. Implied license is a doctrine of quasi contract and depends on the belief and reliance between the parties, for example, if a patent holder agrees to license its patents covering a standard on reasonable and non-discriminatory terms, others will assume that they are free to use that standard so long as they pay a reasonable royalty.\textsuperscript{18} Although, there may be no explicit agreement to license between the IP owner and the users of the standard, the IP owner’s conduct can lead to an implied license to these users.

In Wang Laboratories, Inc. v. Mitsubishi Electronics America, Inc., 103 F.3d 1571-1582 (Fed. Cir. 1997), the Federal Circuit held that Wang not only showed it openness to the marketplace for the use of its patent by granting Mitsubishi an implied license in the exchange of technical information, but also tried to persuade JEDEC to adopt its proposed standard. As a result, Wang’s conduct made Mitsubishi as a patentee to believe that it had an implied license.

One possible solution to make implied license effectively enforceable is that the SSO should specify the sanction for breach. For example, if members failed to license their patents on “fair, reasonable, and non-exclusive” terms to other members, the sanction was a loss of their IP licenses from all other members.\textsuperscript{19} The best policy in construing an IP owner’s agreement to an SSO IP licensing requirement is as the grant of a license itself, rather than a contract with the SSO. The benefits of this approach are as follows: first, all users can enjoy using the standard without being sued for breach of the

\textsuperscript{18} Lemley, \textit{supra} note 1 at 1924.
\textsuperscript{19} \textit{Id.} at 1927
SSO contract itself; second, SSO will be able to set standards for a reasonable royalty in a license without being afraid of being sued by the IP owner for patent infringement.\(^{20}\)

In sum, I believe that the implied-license approach is another means to reduce suits for patent infringement brought by IP owners against users from using the standard, and to protect users from unreasonable royalty fee, if the owners previously agreed to license those patents on reasonable and nondiscriminatory terms. In addition, this approach could also reduce the need for the courts to apply antitrust law or fraud claim to such opportunism.\(^{21}\)

\textit{C. Remedies under Common law}

There are three possible remedies that injured member of SSO seek from a willful IP owner: first is a remedy under common law; second is a remedy under fraud and misrepresentation claim and the third is a remedy under antitrust law. Each of these remedies has its own pitfalls. First two types of remedies has limited remedies while the third remedy, although has broader remedies, the injured party has more burden to show in order to succeed in its merits.

There are typically two types of remedies under the Common law that are under contract law and under fraud or misrepresentation law. Both of these types of remedies are governed by state law.

\(^{20}\) \textit{Id.} at 1925

\(^{21}\) \textit{Id.} at 1926.
1. Breach of Contract

Most IP rules are based on agreements by members of SSO to abide by certain rules regarding IP ownership; therefore, their enforceability is limited to contract law. As a consequence, nonmembers will not have any contractual relationship with SSO and its members. Although members agreed to obey the SSO IP rules such as to license their rights on FRAND term or to disclose its IP rights before the adoption of standards, it does not necessarily guarantee that these obligation will be enforceable. It depends on how a company is bound to obey by law, how specific the commitments are and was the agreement signed by an authorized agent of the company.

There is a sharp distinction between a license under IP law and a contractual obligation to license. The remedy for breach of a contractual obligation to license does not include judicial imposition of a license, but only damages resulting from the breach. "Those damages are likely to be insufficient to compensate accused infringers and society at large for losses they will suffer if they are enjoined from using standards once thought open to all". On the other hand, if a court concluded that an IP owner granted a license and agreed to be bound by an SSO IP rule, the IP owner in this case has only royalty claim under its contractual obligation, not a cause of action for patent infringement that might lead to an injunction, treble damages, and attorneys’ fees. In other words, parties under contractual relationship, can not seek an injunctive relief, but can only seek damages under the contract based on its expectation to gain from the performance and the court’s finding of such expectation damages.

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22 Id. at 1925
23 Lemley, supra note 1, at 1925.
In sum, contractual relationship provides only weak remedies, especially for violation of a disclosure rule, and estoppel and implied license are at most defense to be asserted when an SSO member is sued for infringement.\(^\text{24}\) Therefore, SSO members still looked for a more robust affirmative claim against IP owners who mislead the legal status of a standard that is antitrust and fraud claim. Another solution in trying to remedy social harms is to specify a substantial sanction for breach, but such provisions are likely to conflict with the general rule of contract law that prohibits punitive damages.

2. Fraud or Misrepresentation Claim

A SSO member that fails to comply with an SSO bylaws restricting enforceability of IP rights could face fraud or misrepresentation. However, there are some limitations on the application of fraud. Although each state has slightly different elements on fraud claim, most states have similar elements.\(^\text{25}\) Most obviously, a fraud claim is premised on the fact that the plaintiff must have a duty to disclosure\(^\text{26}\), which would seem to prevent

\(^{24}\) Id. at 1927.


In order to prove fraud in Virginia, a party must show by clear and convincing evidence: 1) there is a false misrepresentation or omission in the face of a duty to disclose; 2) such misrepresentation or omission is a material fact; 3) a party intentionally and knowingly misled the other; 4) the misled party has reasonably rely on the misleading party; 5) such misrepresentation results in damages to the misled party. \textit{Id.} at 520.

\(^{26}\) See Bank of Montreal v. Signet Bank, 193 F. 3d 818, 826 (4th Cir. 1999)(holding that in the absence of a duty to disclose, a party’s silence or withholding information does not constitute fraud).
suits brought by consumers or by nonmembers of the SSO. Thus, although a fraud claim offers an affirmative basis for relief, it is subject to some of similar problems as a breach of contract claim. In addition, if SSO does not define clearly what, when, how and to whom the members must disclose, it does not provide a firm basis for the disclosure duty necessary for a fraud claim. In Rambus, the Court of Appeal found that Rambus’s disclosure of its patent was deceptive because JEDEC members were led to believe that Rambus has no other patent related to the adoption of SDRAM that, in fact, Rambus has pending patent applications related to SDRAM standard.

In Dell, the IP owner has an obligation to disclose the existence of his IP right. Instead of disclosing his IP right relating to the standard, he affirmatively states that none exists. The FTC brought a claim against Dell not for its attempt to monopolize under Section 2 of the Sherman Act, but rather its unfair methods of competition under Section 5 of the Federal Trade Act, which gives a broader meaning than that of the Sherman Act and is only enforceable by the FTC. A fraud or misrepresentation claim might be a

27 See State ex rel. Illuminating Co. v. Cuyahoga County Court of Common Pleas, 776 N.E. 2d 97, 98 (Ohio Ct. App. 2002) (explaining elements of common law fraud claim: (a) a representation or, where there is a duty to disclose, concealment of a fact, (b) which is material to the transaction at hand, (c) made falsely, with knowledge of its falsity, or with such disregard and recklessness as to whether it is true or false that knowledge may be inferred, (d) with the intent of misleading another into relying upon it, (e) justifiable reliance upon the representation or concealment, and (f) a resulting injury proximately caused by the reliance).
28 Rambus Inc. v. Infineon Techs AG, 318 F. 3d 1081, 1102 (Fed. Cir. 2003).
29 Id. at 1112. Rambus disclosed that its '703 patent did not relate to JEDEC’s SDRAM work, but rather the implementation of Rambus’s RDRAM product.
30 Lemley, supra note 1, at 1935.
31 Id.
stronger enforcement mechanism for the SSO than contract because it also offers plaintiffs the possibility of recovering their actual damages and also may be less burdensome to prove than an antitrust claim. For instance, in order to prove fraud, a plaintiff does not need to prove that the defendant or the IP owner could exercise control over market, which is the grounds for antitrust claim. The Rambus case was essentially decided on fraud not antitrust grounds.

D. Antitrust Claim

In terms of SSO IP rule, an antitrust claim against an IP owner will mainly look at competitive advantage the IP owner gained by misleading the SSO members into implementation of a standard they believe to be free to use, but which in fact is owned by the defendant. In private actions, antitrust claims offer plaintiffs treble damages and attorney’s fees as well as the possibility of enforcement by federal or state antitrust authorities. Under this claim, the most possible antitrust claim against an IP owner will be the IP owner’s exertion of his control over the standard-setting process by failure to disclose its IP rights. Such action can give rise to “attempted monopolization” under Section 2 of the Sherman Act. Attempted monopolization consists of three elements:

(1) an IP owner has a specific intent to monopolize;

32 Id.
33 Rambus Inc., 318 F. 3d at 1095
34 Lemley, supra note 1, at 1927.
(2) such intent leads to future anticompetitive conduct; and

(3) an IP owner is likely to succeed in monopolization. All these three elements must be proven by plaintiff in order to make the IP owner liable for attempted monopolization. As for the proof of acquisition or maintenance of monopoly power, plaintiff needs to prove the IP owner’s “willful intent”.

In some recent cases, plaintiffs usually alleged that a defendant persuaded an SSO to adopt its proposed standard by misrepresenting its status such as failing to assert his IP ownership in the standard publicly until after it is adopted, and sometimes showing an affirmative falsehood by signing a statement indicating that he has no IP rights in the proposed standard.38

E. Misrepresentation as a Basis for an Antitrust Claim

In the standard-setting context, the theory is that not only does the IP owner’s misrepresentation to the SSO help it achieve market power; it also gives the IP owner an exclusive control over the market standard. In order for plaintiff to succeed in antitrust claim based on misrepresentation by defendant, the plaintiff must prove the following factors:

First, the plaintiff must establish that the SSO would not have adopted the standard in question if it had known about the misrepresentation or omission. For those SSOs with no IP policy or disclosure requirement, misrepresentation should not raise an antitrust claim because such misrepresentation did not cause the adoption of the standard.

38 Lemley, supra note 1, at 1928.
In other words, the SSO would have still approved the adoption of such standard even if it had known about defendant’s IP right over the standard before such adoption. There is a case in which the court ruled that an antitrust claim may be based on a false representation of willingness to license the patent on reasonable and nondiscriminatory terms. In ESS Tech v. Pc-Tel, Inc.,\textsuperscript{39} the district court held that a misrepresentation to an SSO that a patent owner was willing to license on reasonable terms was tantamount to more than a refusal to license, and was regarded as deceptive conduct that could give rise to an antitrust claim.

ESS bears some resemblance to Dell Computer and Rambus; however, there is one crucial difference–that is the patentee, in this case, showed a false representation of its willingness to license while Dell and Rambus misrepresented the existence of the patent itself. Although not every misrepresentation raises an antitrust issue, misrepresentations can be some grounds for anticompetitive conduct in some circumstances.\textsuperscript{40}

Second, the SSO’s decision to adopt the standard must in turn influence the market.\textsuperscript{41} There are a limited number of cases that a standard achieved market dominance or create a likelihood of success in attempted monopolization under section 2 of the Sherman Act. Those types of monopolization must stem from the misrepresentation and from the possession of the IP right itself. In other words, if the standard, adopted by the SSO would have become dominant anyway in actual standards competition, thus the IP

\textsuperscript{39} No. C-99-20292 (N.D. Cal. Nov. 2, 1999).
\textsuperscript{40} For a comprehensive discussion of misrepresentation as anticompetitive conduct, see 3A Philip E. Areeda & Herbert Hovenkamp, Antitrust Law, P 782b (2d ed. 2000).
\textsuperscript{41} Lemley, \textit{supra} note 1, at 1932.
owner’s misrepresentation has not caused the market dominance. Therefore, “it is the IP right itself, not the IP owner’s failure to disclose it to the SSO that restricts competition in the market”\textsuperscript{42}. In Rambus, according to the facts found by the court, Rambus entered into a series of conduct that misled JEDEC about its patents; such conduct can infer to its intent to monopolize.

Third, after the plaintiff prove both market power or a dangerous likelihood of monopolization and anticompetitive conduct that helped acquire or maintain that power, the plaintiff must prove that the defendant’s failure to disclose its relevant IP rights was with intent. At this stage, it will suffice to prove the violation of IP law and contract law, but for the violation of antitrust law subject to treble damages, it requires the plaintiff to show defendant’s willful conduct in an effort to monopolize.\textsuperscript{43}

\textbf{F. Patent Misuse Doctrine}

This doctrine can preclude an IP owner from enforcing his patents when the IP owner willfully failed to disclose his IP rights to an SSO. Although this doctrine has some advantages in avoiding cumbersome antitrust claim, the doctrine itself has problems as well. First, it is not clear whether the IP owner’s willful failure to disclose his IP rights falls in the scope of “a patent misuse claim” under Patent Misuses Reform Act. The Patent Misuse Reform Act provides that refusal to license a patent can not be deemed as patent misuse. Second, the Federal Circuit’s current application of patent misuse does not seem to encompass a failure to disclose of IP rights. Finally, the remedy for patent

\textsuperscript{42} \textit{Id.} at 1933.

\textsuperscript{43} \textit{Id.} at 1925.
misuse might be too broad in case the patent also covers technologies not included in the standard.

V. CASES ANALYSIS

In standard-setting circumstance, it is believed that the IP owner’s misrepresentation can manipulate the standard-setting process in a way that avails the IP owner to achieve market power. As a result, the IP owner not only has exclusive control over the market standard, but it also enable it to use the group standard to reach a dominant position that he might not have achieved easily in an open standards competition. In Rambus or Dell, if they had informed the SSO members that the standards they were to adopt incorporated Rambus’ or Dell’s patents were their proprietary, it would unlikely that the group would have adopted these standards. Furthermore, these standards would have faced more intensive competition within the SSO than they did.

*Broadcom Corporation v. Qualcomm Incorporated.*

*(Still in the United States District Court for the District of New Jersey’s proceeding)*

and

*Broadcom, Ericsson, Nokia, Panasonic Mobile Communications and Texas Instruments v. Qualcomm Incorporated*  
*(Still in European Commission’s investigation)*
1. Disputes

In U.S., Broadcom recently filed a suit claiming that Qualcomm’s conduct violates U.S. antitrust laws. Broadcom alleged Qualcomm that it has abused the wireless technology standards-setting process by failing to meet its licensing technology commitments under fair, reasonable, and non-discriminatory terms (“FRAND”) and was involved in anticompetitive practices in the cell phone and chipset technology called Wideband Code Division Multiple Access (“WCDMA”). In response to Broadcom’s allegation, Qualcomm filed a suit against Broadcom, in a San Diego Federal Court, alleging Broadcom infringes on seven of Qualcomm’s patents that are “essential” to the manufacture or use of components compatible with GSM/GPRS standards and with Wireless Local Area Networks known as Wi-Fi. Qualcomm also counterclaimed that “its extensive licensing program in WCDMA technology has fostered the widespread adoption of its leading edge technologies and promoted vibrant competition throughout the wireless industry; thus, Qualcomm’s licensing practices are lawful, fair, reasonable and procompetitive.” Qualcomm is seeking unspecified monetary damages and an injunction to halt the sale of products related to the complaint.

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44 The following disputes are only disputes related to this paper. Not all disputes are raised in this paper.
48 Horgan, supra note 47 at 2.
In Europe, six companies, namely Ericsson, NEC, Nokia, Panasonic Mobile Communications, Texas Instruments and Broadcom filed complaints asking the European Commission to investigate Qualcomm’s anticompetitive conduct in licensing of essential patents for 3G mobile technology. The companies stated that Qualcomm is violating EU competition law and failing to meet the commitment made to international standard-setting organizations around the world that it would license its technology on FRAND terms. Most claims alleged that Qualcomm was trying to exclude competing WCDMA 3G chipset manufacturers from the market and preventing others from entering as shown by a number of abuses such as its refusal to license WCDMA’s essential patents to potential chipset competitors on FRAND term and its discriminatory behavior in offering lower royalty rates to handset customers who buy chipsets exclusive from Qualcomm.49 These companies believed that Qualcomm’s anti-competitive behavior has harmful effects for the mobile telecommunications sector in Europe, as well as elsewhere, because carrier and consumers are facing higher prices.50 Qualcomm later filed a suit against Nokia for infringing of its eleven patents used in GSM technology.

50 Id..
2. Background

Qualcomm is a wireless chipmaker, which owns a large pool of patents used in cell phone technology especially in CDMA technology.\(^{51}\) Broadcom is a rival UMTS chipmaker to Qualcomm.\(^{52}\) WCDMA is a third generation (“3G”) technology that is implemented through a mobile telephone standard known as the Universal Mobile Telephone System (“UMTS”).\(^{53}\) There are currently two leading second generation (“2G”) wireless technologies that are Global System for Mobility (“GSM”) technology and CDMA technology. Most European countries use GSM technology while in U.S. uses both technologies. However, these carriers are in the process of upgrading their mobile phone networks to 3G systems so that they can increase network capabilities in voice, data transmission and internet connectivity.\(^{54}\) Both of the technologies are not compatible with each other; therefore, when upgrading to 3G standard, GSM will adopt WCDMA or UMTS standard while CDMA will adopt 3G CDMA standard known as CDMA2000-1xEVDO.\(^{55}\) “Qualcomm claims to hold patents essential to 3G CDMA and

\(^{51}\) Broadcom.’s Compl. ¶ 61, 62; see also Broadcom Corp. v. Qualcomm Incorp. (Sep. 2005) (No. 05-3350), at http://www.techlawjournal.com/home/newsbriefs/2005/07a.asp (last visited Dec. 5, 2005); see also Horgen. supra note 44 at 2


\(^{54}\) Broadcom.’s Compl. ¶ 5.

\(^{55}\) Broadcom.’s Com. ¶ 6, 7. Cf. In re Dell Computer Corp., 121 F.T.C. 616 (1996) (finding that Dell failed to disclose its VL-Bus patent to the committee before the adoption of its patent as a standard, thus, estopped Dell from claiming its patents against members.
WCDMA wireless telecommunications standards that have been adopted or proposed for adoption by Standard Development Organizations ("SDOs") worldwide.\textsuperscript{56}

VI. \textbf{Comparative Analysis of Broadcom’s Claims and Other Leading Chipset and Handset Manufacturers’ Claims for Relief Against Qualcomm in U.S. and E.U.}\textsuperscript{57}

After Broadcom brought a suit against Qualcomm in U.S. and in Europe, Qualcomm sued Broadcom for infringing seven of its patents. The question is what claims can be raised against Qualcomm. The following analyses are mainly speculative based on Broadcom’s complaint, Qualcomm’s response to the claim, a press released by Ericsson, NEC, Nokia, Panasonic Mobile Communications, Texas Instruments and Broadcom and information I gathered from various websites. Here are possible claims Broadcom and other chipset and handset manufacturers can raise:

A. Implied License

Broadcom alleged that Qualcomm refused to license its on FRAND terms that undermines UMTS innovation and competition; therefore, Broadcom is entitled to implied license according to the following facts:

- Qualcomm represented in writing with International and United States standard-setting committee ("IUSS") that if IUSS adopted its WCDMA technology and

\textsuperscript{56} Broadcom.’s Compl. at ¶ 52.
\textsuperscript{57} Not all allegations were raised in this analysis, but only allegations pertaining to a research topic were analyzed. Importantly, due to limited information mostly derived from Broadcom, all analyses are based on the current information such as Broadcom’s complaint, private critiques and telecommunication websites.
UMTS standard as a mobile phone standard, Qualcomm would license its WCDMA patents on FRAND term.  

- Qualcomm entered into exclusive dealing with cell phone manufacturers by a means of providing free UMTS chipsets to the cell phone manufacturer who agreed not to use competitors’ chipset or giving a reduction in their royalty if they purchases UMTS chipset from a Qualcomm-licensed chipset manufacturer.  

- Qualcomm stated in its latest 10k that SDOs do not have the enforcement authority or ability to protect IP rights.  

According to the fact alleged, it is still not clear what commitments Qualcomm may have given to SDOs although Qualcomm explicitly agreed with IUSS to license its patents on FRAND term. It is not certain that Broadcom will succeed in asserting its implied license defense against Qualcomm as it depends on how specific the agreement was, whether there is any sanction on its failure to license on FRAND term and whether Qualcomm’s conduct in giving one million free UMTS chipsets to cell phone manufacturers can be implied as a breach of FRAND, and a grant of its license in comparison with Wang case.  

If SDOs and their members, including Qualcomm, had agreed to have a sanction clause for breach of FRAND terms such as a loss of licenses if a member failed to license its patents on “fair, reasonable, and non-exclusive” to other member or the grant of a

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58 Broadcom.’s Compl. at ¶ 3.  
59 Id. at ¶ 15,94.  
61 See infra p. 8. See also Wang Labs., 103 F.3d at 1571-1582.
license, \textsuperscript{62} Broadcom would be able to succeed in its defense and Qualcomm would be barred from asserting its patent rights against members. In sum, there was not a clear written policy explaining the remedy for a breach of the obligation to license in FRAND term.

B. Breach of Contract

It is possible that Broadcom will be able to claim a breach of contract on the grounds that there was a contractual obligation between Qualcomm and SDOs; however, it depends on how specific the commitments are, and was there a duty to license on FRAND terms in the agreement and signed by an agent of Qualcomm. Even if there was the agreement, the enforceability would still be limited under the rule of contract law and remedy. \textsuperscript{63} In sum, more facts are needed in analyzing this issue. Qualcomm still keep this information confidential for the court proceeding.

C. Fraud or Misrepresentation

- Qualcomm represented to the SDOs and to the public that if its patented technology was incorporated into the UMTS standard, it would license that technology to all members of the standard on FRAND term. \textsuperscript{64}
- Qualcomm’s false commitments to FRAND were intended to, and did make widespread adoption of WCDMA wireless standards, including Qualcomm’s

\textsuperscript{62} See infra p. 8 and note 14.  
\textsuperscript{63} See infra pp. 17-18.  
\textsuperscript{64} Broadcom.’s Compl. ¶ 197
essential WCDMA patents.\textsuperscript{65} In reliance on Qualcomm’s assurance, SDOs around the world adopted WCDMA standards, together with the UMTS standards.\textsuperscript{66} This conduct causes wireless service carriers around the world to invest billions of dollars in building and improving wireless networks utilizing WCDMA technology. According to Qualcomm’s statement, any carrier that implemented WCDMA standards would definitely infringe Qualcomm’s patents unless it obtained a license, which Qualcomm had agreed to provide on FRAND terms.\textsuperscript{67}

- Qualcomm made the foregoing representations knowing to be false with no intention to license on FRAND terms and with intention to induce SDOs and their members to rely on such representations.\textsuperscript{68}
- Broadcom has reasonably relied upon the foregoing representations. As a result, Broadcom invested millions of dollars in developing and acquiring UMTS chipset technology.
- Qualcomm’s foregoing actions and conduct constitute intentional and material misrepresentation that has damaged and will continue to damage Broadcom.

According to the facts, it is likely that Broadcom will succeed in proving all elements of a fraud claim as follows: 1) Qualcomm has a duty to license on FRAND term based on its commitment to IUSS and it fails to do so, 2) misrepresentation is material 3)
Qualcomm has shown it intention not to license on FRANS terms 4) Broadcom reasonably rely on Qualcomm’s commitment 5) Broadcom suffer loss, damages

D. Antitrust Claim

1. Under the Sherman Antitrust Act (U.S.)

The following analysis predicts possible claims against Qualcomm’s conduct in both CDMA and WCDMA/UMTS chipset market:

a) Qualcomm Obtained and Maintained its Monopoly Power in the 3G CDMA Technology and 3G CDMA Chipset Market in Violation of Section 2 of the Sherman Act

- Qualcomm supplies 80%-90% of the world’s CDMA-based chips and holds more than 1400 patents relating to CDMA technology and components, including the majority of the patents considered “essential” for CDMA systems, cell phones and chipsets. As such, there are no substitutes for the technology and thus Qualcomm holds monopoly power in each of the markets for CDMA technology.

- Qualcomm’s monopoly power in the sale of CDMA chipsets has allowed it to raise prices and restrict output. Qualcomm delayed the supply of its CDMA chipsets to cell phone manufacturers which have a high demand. The constant threat of a supply shortage increases Qualcomm’s leverage with manufacturers.

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69 See ITT Hartford Group, supra note 25 at 520.
because Qualcomm’s anticompetitive use of its monopoly has resulted in the virtual exclusion of all competitors.\textsuperscript{71}

- Broadcom alleged that Qualcomm’s dominant position in current CDMA chipset sales enabled it to delay the adoption of EVDV standard by 3GPP2 (which is similar to SSO). The EVDV standard was proposed by rivals of Qualcomm and it has better technology in both voice and data signals than Qualcomm’s EVDO technology. Qualcomm threatened 3GPP2 members to decrease supply and increase chipset prices if the members did not support its EVDO technology. After the EVDV standard was approved, Qualcomm withheld supplies of CDMA chipsets from at least one customer in an attempt to induce the customer to abandon the EVDV standard. Subsequently, Qualcomm announced to exclude EVDV chipsets from its future product plan that results in the abandonment of EVDV technology.\textsuperscript{72}

Based on the given fact, there is a clear indication that Qualcomm’s conduct constitutes monopolization in 2G and 3G CDMA chipsets’ market supported by its supply at least 80\% of the CDMA chipsets, its ability to raise prices or to delay the supply of CDMA chipsets around the world, its significant leverage into the relevant market, and its intervention in the abandonment of EVDV technology that might affect its EVDO technology.

\textsuperscript{71} Broadcom.’s Compl. ¶ 71.
\textsuperscript{72} Id. at ¶ 75-80.
b). Attempted Monopolization of UMTS market in Violation of Section 2 of the Sherman Act.

- Broadcom alleged that Qualcomm, after its success in dominating 2G CDMA chipset market, and 3G CDMA chipsets, has unlawfully attempted to monopolize the WCDMA technology markets by inducing the relevant SDOs to adopt 3G standards that incorporating Qualcomm’s patents as an essential element, relying on Qualcomm’s promise to license on FRAND term.\(^73\) After WCDMA was adopted, Qualcomm refused to provide Broadcom a license on FRAND terms. Qualcomm argued that Broadcom’s allegations regarding Qualcomm’s monopolization conduct in WCDMA chipsets market is meritless because Qualcomm has only small percentage of the WCDMA chipsets sold to date due to the highly competitive market among WCDMA chipsets suppliers.\(^74\)

- Qualcomm announced that it holds the majority of the patents essential for CDMA technology and components; therefore, the CDMA standards and the UMTS standard cannot be implemented without using Qualcomm technology based on its patents.\(^75\)

- Qualcomm has engaged in a continuous pattern of unlawful licensing and marketing practices to attempt to expand its CDMA chipset and WCDMA technology monopolies into the UMTS chipset market since most of the

\(^{73}\) Broadcom.’s Compl. at ¶ 140.


\(^{75}\) Broadcom.’s Compl. ¶ 21.
manufacturers of UMTS cell phones are the same companies in the 2G and 3G CDMA. Qualcomm has recently reached a deal on UMTS chipsets with 26 cell phone manufacturers. This conduct will be likely to foreclose Broadcom’s entry into the UMTS chipset market.

Based on the alleged fact, Qualcomm’s success in convincing the SSOs to adopt WCDMA technology into the UMTS chipset market coupled with its aggressive market strategies as mentioned above might lead to conclude that Qualcomm has a specific intent to monopolize the WCDMA market and Qualcomm’s intent will lead to future anticompetitive conduct. Due to the fact that Qualcomm’s past conduct in exercising its control over the sale of 2G CDMA chipsets in approximately ninety percent market share, it is possible enough for Qualcomm to succeed in monopolizing the UMTS chipset market in the near future.

Moreover, Qualcomm’s misrepresentation shown by its disregard to license its WCDMA technology under FRAND terms, its attempt to impair Broadcom’s ability to compete and to gain market share in UMTS chipset market as stated above result in incremental damages to Broadcom and other chipset manufacturers. These misleading conducts causes SSOs to adopt a standard it otherwise would have rejected, and that the adoption of that standard will in turn confer on Qualcomm market power it would not have obtained in WCDMA. On the contrary, it is likely that Qualcomm might argue that if there had been no misrepresentation, the standard would still become dominant anyway; therefore, Qualcomm’s conduct has not caused the market dominance.

76 Id. at ¶ 113, 114
77 Id. at ¶ 8,63,64
c. Exclusive Dealing, Exclusionary Agreements and Tying in Violation of Section 3 of the Clayton Act and Section 1 of the Sherman Act.

- Qualcomm entered into agreements with cell phone manufacturers on the condition that it will substantially reduce royalty rates if those companies agree to purchase Qualcomm’s UMTS chipsets only, not to purchase competitors’ chipsets. As Qualcomm has admitted that its patent licensing agreement with Chinese cell phone manufacturers is expressly discriminatory and explicitly linked to those manufacturers’ use of Qualcomm chipsets, the terms are dependent on whether the cell phone is sold inside or outside of China. Qualcomm imposes the terms- a lower-than-standard royalty rate for revenues from the domestic market and a higher-than-standard rate for sales from exports. However, to get the lower rate within China, the Chinese manufacturer must agree not to deal with a competitor. Such agreements constitute an effective refusal to deal on commercially reasonable terms that could restrain competition and foreclose a substantial share of the UMTS chipset market in violation of Section 1 of the Sherman Act and Section 3 of the Clayton Act.

- Steve Altman, president of Qualcomm, said in the statement the company’s business practices were not harming the industry as the average selling price of WCDMA handsets is declining, and WCDMA subscriber is increasing faster than GSM experienced during its early commercial years.

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79 Broadcom’s Compl. ¶ 74
80 Id. ¶ 150, 163.
• UMTS chipsets and Qualcomm’s patents in essential WCDMA technologies are distinct products that meet separate customer and end user demands and are separately licensed or sold by Qualcomm or others.

• Qualcomm imposed a wide array of terms aiming to impair Broadcom’s ability as a patentee and a chipset competitor to Qualcomm: Qualcomm requires cell phone manufacturers to pay high up-front fee access to Qualcomm’s essential patents, but reduce those fees if the cell phone manufacturers agree to buy Qualcomm’s UMTS chipsets. 82 These marketing incentives on the purchase of Qualcomm’s UMTS chipsets and the combination of an effective refusal to deal on commercially reasonable terms constitute unlawful tying arrangements in violation of Section 1 of the Sherman Act and Section 3 of the Clayton Act. 83 The purpose and effect of Qualcomm’s tying arrangements is to maintain or acquire monopoly power in the UMTS chipset market and to foreclose competition in such market and unreasonably to restrain trade and competition in such markets. These tying arrangements foreclose a substantial amount of interstate and foreign commerce.

Based on the alleged fact, in analyzing whether Qualcomm’s conduct in entering an exclusive agreement to require a cell phone manufacturer to buy its UMTS chipset in exchange for a lower royalty rate and other strategies restrain and foreclose competition in UMTS market, the rule of reason must be applied in evaluating legality of exclusive

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82 Id. at ¶ 86.
83 Id. at ¶ 158, 169
dealing under section 1 of the Sherman Act\textsuperscript{84} and section 3 of the Clayton Act.\textsuperscript{85} The basis inquiry under a rule of reason analysis is whether a restraint is likely to have anticompetitive effects. Qualcomm have tried to restrain its licensees from buying competitor’s UMTS chipset. As Qualcomm owns approximately between 10-20\% of the patents for UMTS chipset,\textsuperscript{86} it is still not clear whether Qualcomm’s conduct significantly constrain the sale of Broadcom’s UMTS chipset or foreclose competition in the UMTS market. As a general matter, Broadcom might succeed in this claim if it can prove that an exclusive dealing arrangement forecloses from competitors at least 40-50\% of a properly-defined relevant market.\textsuperscript{87}

In addition, it is not likely that the Department of Justice and the Federal Trade Commission (“the Agencies”) will challenge a tying arrangement according to Broadcom’s allegation even if Broadcom succeeded in proving that Qualcomm had market power in CDMA market (the tying product) and was able to force licensees to buy only Qualcomm’s UMTS chipset., there is still not a clear indication of how much amount of foreclosed competition in the UMTS chipset market(tied product) would be enough to make Qualcomm per se liable\textsuperscript{88} Moreover, there are still efficiency

\textsuperscript{84} See e.g., Tampa Electric Co. v. Nashville Coal Co., 365 U.S. 320 (1961).
\textsuperscript{85} See e.g., Beltone Electronic Corp., 100 F.T.C. 68 (1982).
\textsuperscript{87} See e.g., U.S. v. Microsoft Corp., 253 F. 3d. 34, 70 (D.C. Cir 2001)
\textsuperscript{88} See e.g., Jefferson Parish Hospital Dist. No. 2 v. Hyde, 466, U.S. 2 (U.S. 1984) (explaining that one affected customer of the tied product would not be enough to prove “not insubstantial”, but there is no need to foreclosure of a major competition in the tied market either. See also Fortner Enterprises, Inc. v. United States Steel Corp., 394 U.S. 495, 502-505 (U.S. 1969).
justifications for the arrangement based on Qualcomm’s argument that the average selling price of WCDMA handset is declining.

In sum, it is likely that Broadcom will succeed in proving that Qualcomm has exercised its monopoly power in 2G and 3G CDMA market and has consistently maintained its monopoly power in CDMA market, and also has a likelihood of success in an attempt to monopolize WCDMA market in violation of Section 2 of the Sherman Act. However, based on the alleged fact, it is still not clear that Qualcomm’s exclusive dealing and tying arrangement violate Section 3 of the Clayton Act and Section 1 of the Sherman Act.

2. Under the European Commission Competition Law

How does the EC Competition law apply to a Standard-Setting Organization?

The core competition law issues arising in relation to standards concern\(^{89}\):

1. The terms of standardization agreements, the manner in which standardization operate, and the way in which a standard is set, could raise questions related to Article 81; \(^{90}\)

2. The contribution of necessary IP to a standard, or the manner in which access is provided to a proprietary de facto standard, which principally raises questions related to Article 82\(^{91}\)


\(^{90}\) *Id.*
The primary provision of EC competition law regarding standardization agreements is Article 81. From a competition law perspective, standardization agreements generally will be welcomed if it can be expected that they will bring economic benefits, such as improved supply or the opening of new markets and the agreement does not harm innovation. By contrast, standardization agreements could breach Article 81 if the criteria for involvement in the standard-setting process are exclusionary, such that certain competitors cannot participate in the formulation of the standard and have no access to the standard, to the extent such criteria are subjective and not objectively justifiable. All competitors in the market affected by the standard should be able to be involved in discussions. Therefore, participation in standard setting should be open to all, unless the parties demonstrate important inefficiencies in such participation or unless recognized procedures are foreseen for the collective representation of interests, as in formal standards bodies.

To the extent the standardization agreement does contain restrictions on the setting of the standard, use of the standard or access to the standard, the parties to the agreement must be able to demonstrate that these restrictions are required to achieve the economic benefits envisaged to result from the standards agreement. 92 High market shares held by the parties in the market affected will not necessarily be a concern for standardization agreements if the standard concerned has a insignificant coverage of the relevant market, no appreciable restriction on competition exists.

91 Id.
92 Gerrits, supra note 89.
However, in a number of cases, the success of a standard will depend on the coverage it has in the relevant market. If the standard covers a significant portion of the market, it need not be restrictive of competition provided the general principles above are observed in relation to the setting of, use of and access to the standard.

Current Situation

Broadcom and other five companies namely Ericsson, NEC, Nokia, Panasonic Mobile Communications and Texas Instruments filed complaints to the European Commission requesting that it investigates and stop Qualcomm’s anticompetitive conduct in the licensing of essential patents for 3G mobile technology. Qualcomm subsequently proceeded with litigation against Nokia for infringement of a dozen of its patents which are essential for the GSM, GPRS and EDGE cellular phone standards.

Until now, the Commission has not made any decision on Qualcomm whether they are going to pursue the case or not as they need to gather information from the market and hear Qualcomm and the other parties thoroughly which might take one to two years. As the claims raised by these six companies are different from the claims Broadcom raised against Qualcomm in U.S., the following analysis will base on the following information gathered through various websites.

These six companies mainly are mobile phone handset manufacturers. Qualcomm is a chipset manufacturer that own essential patents of 3G handsets. The following claims are raised by six companies:
a. Qualcomm is unfairly trying to exclude other manufacturers from the market by refusing to license its essential patents for UMTS technology on FRAND terms despite Qualcomm’s commitment made to international standard bodies.

- Qualcomm responded that most of the complainants are Qualcomm’s licensees and are not excluded from the market.\textsuperscript{93} The allegation regarding exclusionary agreements is misleading and Qualcomm’s pricing merely reflects legitimate price competition.

In order for Qualcomm to abuse of its dominant position under Article 82 of the EC treaty, a two-step process must be proved; first, whether a dominant position exist and second, whether there is an abuse of the dominant position. Based on the given information, under a structural approach\textsuperscript{94}, it is clear that Qualcomm has a dominant position in 2G and 3G CDMA chipset market with 80%-90% of the market for CDMA-based chips; however, it is unlikely that Qualcomm has a dominant position in WCDMA chipset market as most sources said that Qualcomm has between 10-20% of the patents for WCDMA technology. The next step is to prove whether Qualcomm has abused of its dominant position in CDMA market. We mainly look at whether there were exclusionary practices by Qualcomm aiming to cripple other WCDMA chipset competitors such as pricing strategies; discriminatory discounts and fidelity rebates, and non-pricing strategies; refusal to deal or tying.

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\textsuperscript{93} Spencer Chin, *Qualcomm: Claims to EU have no merit*, (Oct, 2005), at. \url{http://www.eetimes.com/showArticle.jhtml?articleID=172901450} (last visited Jan. 16, 2006).

\textsuperscript{94} If there is at least 50% market share, it is by itself evidence of the existence of a dominant position. See, e.g., Case 62/86, (1991) ECR I-3359 Akzo Chemie v. Commission.
According to the alleged fact, the refusal to license on FRAND terms can be considered as an abuse if it results in the exclusion of all competition. However, there seems to be no strong evidence that all UMTS chipset manufacturers are entirely excluded from the downstream market because of the refusal as Qualcomm still widely licenses many chipset makers to manufacture the chipset. In the absence of such evidence, a finding of abuse would have to draw on cases such as Magill\(^{95}\) and IMS Health\(^{96}\) in which the European Court of Justice held that although a refusal to grant a license cannot in itself constitute an abuse of a dominant position, a dominant undertaking has “special responsibility” under Article 82 to license its technology to competitors only the following circumstances:

1. the refusal to license precludes the emergence of a new product for which there is a consumer demand;
2. as a result of the refusal, all competition in such market is excluded;
3. the IP owner cannot justify the refusal.

These conditions are unlikely to be applied to Qualcomm case because Qualcomm has licensed to its patents for UMTS chipset to other handset manufacturers who are Qualcomm’s licensees on the terms that they can manufacture and deliver those handsets to customers. As a result, even if Qualcomm’s refusal to licenses its UMTS technology under FRAND terms does not render special responsibility under Article 82.


\(^{96}\) Case C-418/01 IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG.
b) Exclusionary or Discriminatory Conduct

- Qualcomm offers lower patent royalty rate to handset makers who buy chipsets exclusively from Qualcomm.\(^97\)

Under Article 82(c) of the EC Competition Law, it states that it is considered an abuse for a dominant position to apply "dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage".

Based on the given fact, those handset manufacturers are Qualcomm’s licensees for UMTS chipset and they compete among another; therefore, if Qualcomm entered into exclusionary agreement and gave special discount to one of them, it could violate Article 82 (c) by placing other handset manufacturers at a competitive disadvantage. However, Qualcomm might be able to come up with its legitimate reasons in doing that such as some licensee has different volumes of sales, different terms and conditions, different net revenue and different market- an emerging market in China. According to Qualcomm’s press release, it maintained standard royal rates across all of its customers, ensuring that everyone has most-favored-customer status. Sometimes a customer might get lower-up front fees if the scope of license was narrow. Qualcomm admitted that it did have different terms with Chinese chipset manufacturer, but Qualcomm still offered China’s terms to other suppliers on a most-favored-customer basis.

In addition, if such exclusive dealing or discounts could successful exclude Qualcomm's competitors from some relevant market, then such actions would also be abusive because of its exclusionary effects. If this analysis is correct, then the questions that the European Commission needs to consider are: 1) What discounts or exclusive dealing were actually offered and given? 2) Can they be objectively justified without reference to exclusivity?

c. Qualcomm was alleged to charge excessive royalties for its 3G WCDMA essential patents the same as it does for 3G CDMA despite the fact that Qualcomm has contributed less technology to the WCDMA than that of the 3G CDMA standard.98

- Qualcomm responded that this allegation was a ploy by licensees to renegotiate their license agreements through government intervention.99

According to the EC Competition law, if a firm has a dominant position in a market it has a "special responsibility" not to charge excessive or unfair prices. The scope of an unfairly exploitative price is the exploitation by the dominant firm that use its dominant position to reap benefits they would not have got if there had been sufficiently effective competition100 For example, if a firm engages in an exclusionary abuse that has

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98 Clarke, supra note 97. Qualcomm does not say how much percent of the WCDMA essential patents they own but one analyst estimated that Qualcomm has only 20%. However, Irwin Jacobs, one of the Qualcomm’s board of directors, said that even if we only had 50% of that WCDMA market, it would be a substantial business. Therefore, it means that Qualcomm has less than 50% of the WCDMA market.

99 Chin, supra note 93.

100 See e.g., Case 27/76 (1978) United Brands Company and United Brands Continental BV v Commission of the European Communities.
an effect on restricting competition in a market in which it has a dominant position, and if that restriction results in higher prices than the charges that would have prevailed under conditions of normal and sufficiently effective competition, then such action is deemed to be an exploitative abuse.

The question is whether Qualcomm’s conduct in inducing the standard-setting body to adopt some of its technology and its conduct in charging excessive patent royalties for WCDMA are contrary “normal and sufficiently effective competition”. More information is needed in order to analyze whether there was an excessive royalty charged by Qualcomm such as a number of patents Qualcomm holds for WCDMA technology and the royalty rate Qualcomm charges for WCDMA technology. In case, six companies were able to prove that Qualcomm’s conduct was contrary to the effective competition, and Qualcomm’s dominant position in WCDMA market, Qualcomm would have a special responsibility under Article 82.

Article 82 could be taken to require Qualcomm to comply with its FRAND commitment made with the standard-setting process. According to the EC competition law, even if these promises did not amount to contracts, there would be enforcement for promises on the condition that it was made by a dominant firm and the market relied upon. In my opinion, it is unlikely that six companies will succeed in proving those claims. Moreover, the six companies argue that Qualcomm has contributed less technology to the WCDMA 3G standard than it has to the CDMA2000 standard; therefore, WCDMA royalties should be lower.
All analysis above is speculative as there is no direct EC case law that can be applied to Qualcomm’s case and also a few cases that explain the application of Article 82 regarding the patent ambush in standard-setting organizations.

In sum, there are differences between EC and US law regarding the application of its rule to the problem. In E.U. law, liability arises only for an abuse of dominance whereas in U.S. law, liability arises if there is anticompetitive behavior.\textsuperscript{101} To show an abuse in a patent ambushes context is problematic because a member of a standard-setting might intentionally conceal its patent right on the adopting standard until it is implemented so that it becomes dominant. As a result, it is difficult to say that the liability arises under Article 82. In addition, the assertion of IP rights against other members of SSO may not constitute abuse of dominance, since the patent was properly granted in the first place. Therefore, the only possible liabilities under Article 82 are if the IP holder licenses on unfair terms, engages in excessive pricing or refuses to license in order to control monopolize a downstream market.\textsuperscript{102} However, the commission is currently developing guidelines for the Article 82 and trying to minimize the differences between Article 82 and the U.S. Sherman Act such as explaining about what is an exclusionary and discriminatory abuse in its guidelines.\textsuperscript{103}

\textsuperscript{101} DG Competition representative’s comment to an American Bar Association International Roundtable (July, 2002).
\textsuperscript{102} Id.
The Standard Setting Organization of IP rules have a confused mixture of legal theories that lead to the problem of disclosure. Each of the SSO IP rules has its own pitfalls. In general, considering all rules together, these legal rules share the same common goal in ensuring that participating IP owners do what they promised to do and disclose what they are bound to disclose. In addition, SSO rules concerning the rights of IP owner have raised a number of antitrust issues. One side believes that SSO rules are procompetitive so long as they encourage more innovation than restraints, while the other side sees the rule itself as anticompetitive mechanism that reduces incentives to innovate in the long run. There are a number of SSOs trying to regulate IP rights of their members as more members of the SSO likely own some patent covering the standard that will enable them to control the standard by enjoining anyone else from using the standard. What SSOs usually do is to require members to give up any IP right that covers the standard, thus, resulting in open standard that anyone is free to use it.

However, some SSOs permitted members to own patents, but under the condition that they agreed to license the patents to other members on a royalty-free basis or for reasonable and nondiscriminatory terms (FRAND). In Qualcomm, it raised compelling questions as to whether SSOs rule should be more specific on sanction to the patent owners’ failure to license on FRAND term, such as implied license in form of a loss of license, a grant of license to SSOs, fraud claim, antitrust claim if all elements are met. The study conducted by Mark A. Lemley shows that twenty-nine of the thirty-six SSOs
required members to license their patents right on reasonable and nondiscriminatory terms.\textsuperscript{104} Although such term appears to be the majority rule among SSOs with patent policy, there is no clear explanation about what “reasonable and nondiscriminatory” mean and how to resolve disputes if there was violation of the term. One possible solution is to have the SSO specify the royalty that will be charged for each IP right and have a certain definition of “reasonable” such as reasonable in commercial and technological concept.\textsuperscript{105}

It is certainly possible for a participating IP owner to gain a market advantage by concealing its IP rights from an SSO long enough for the SSO to adopt a standard based on its IP rights and later exert its power to control the market. This is an antitrust risk that needed to be closely monitored. However, antitrust liability, which could result in significant remedies, should not be applied to every IP owner’s failure to disclosure information about IP relevant to a standard or a failure to license on FRAND terms, it should be limited to the situation in which nondisclosure or noncompliance with FRAND rule are triggered by the intent to control market share, and such nondisclosure or noncompliance create significant competitive consequences. In other words, antitrust should not be used as a general enforcement mechanism for disclosure rules or licensing on FRAND rules, but it should serve as useful examination of abuses in the standard-setting process.

In Qualcomm, SDOs does not clearly impose sanction when Qualcomm fails to license its WCDMA technology on FRAND terms, thus, leading to complicated problems

\textsuperscript{104} Lemley, 90 Calif. L. Rev 7 (2002)
\textsuperscript{105} Id. at 1967.
as mentioned above. Therefore, SSO IP rules should be ex-ante oriented approach because members of the SSO could not know in advance as to when their IP rights will be adopted by the SSO and when it will become a standard. Moreover, the SSOs should make a clear rule on whether the adopting standards will be fully open, without IP or, proprietary but on the condition that any IP is subject to mandatory licensing on reasonable terms or full proprietary with no restriction. This clarity will allow the market to evaluate the full costs and benefits of competing standards while it will also lessen antitrust issue.

Appropriate remedies can be calculated by expert testimony and testimony from industry participants as to the value of a reasonable royalty based on market demand for technology unrelated to demand for the standard. This calculation is based on the condition that no ex ante (before the adoption of the effectively mandatory standard) licensing has taken place. However, an additional penalty should be imposed on the basis of the useful life of the technical contribution of the relevant patents rather than the life of the patent. Injunctive relief should be sought which prohibits the future collection of royalties of the IP and also additional safeguards that prevent the future anticompetitive conduct concerning standardization process.

In sum, I think SSOs have become more meticulous about how to make IP rules less problematic to all relevant parties while keep balancing between promoting innovation, enhancing consumer welfare and preventing opportunism.

106 Id. at 1951