Looking with an Equitable Lens at Hold-Ups of Standard Setting: Qualcomm v. Broadcom's Remedy for Misuse

By David C. Brezina

he 2008 Federal Circuit decision in Qualcomm v. Broadcom1 is best known for its dramatic electronic discovery developments. The most notorious feature of the case for most lawyers was the disclosure at trial of previously unproduced e-mails leading to multimilliondollar sanctions against both the client and the attorneys.2 The actions of counsel in this case strike at the heart of the attorney-client relationship and provide a clear example of how not to handle electronic discovery issues.

However, less dramatic features of the case—the equitable features shaping the ultimate remedy in Qualcomm-offer other important lessons about how to consider patent misuse in the context of standard-setting organization (SSO) processes and also about how courts will shape injunctive relief for parties that may be injured as a result of violations of rules governing these processes. Misuse or rule violations can occur if a patent holder belonging to one of these organizations improperly influences the standard-setting process in order to position its product in a particular market. The relevant equity considerations governing the proper remedy in this setting can be seen by considering the facts of Qualcomm in the context of case law developments in other patent law areas where equitable considerations have been important, such as case law concerning patent misuse and inequitable conduct. This article places the remedy in Qualcomm in this equitable context and indicates how equitable considerations concerning patent enforcement relief in SSO processes and other transactional settings should be analyzed in the future.

Disputes Surrounding Qualcomm v. Broadcom

Qualcomm and Broadcom's litigation regarding SSO practices was conducted against a backdrop of several other cases involving these parties. A number of important legal issues were addressed in opinions rendered in these additional cases. One 2008 decision by the Federal Circuit³ is generally noted for its refinement of the treatment of an opinion of counsel in the context of allegations of willful infringement, following up on the court's earlier decisions in the same area in Knorr-Bremse⁴ and Seagate.⁵ Another decision by the Third Circuit⁶ addressed the circumstances in which deceptive conduct in an SSO process can adequately set forth a Sherman Act cause of action.

David C. Brezina is of counsel with Ladas & Parry, LLP. He specializes in patent and trademark litigation, business decision making, and contract negotiation. He is the author of numerous articles and presentations. Based in Chicago, he is an adjunct professor at John Marshall Law School's Center for Intellectual Property Law. He can be reached at dbrezina@ladas.net.

Qualcomm's Activities Leading to the Patent Enforcement Litigation

The dispute underlying Qualcomm stemmed from Qualcomm's participation in deliberations of the Joint Video Team (JVT), an SSO in the video field. JVT was formed to develop a single "technically aligned, fully interoperable" industry standard for video compression technology. The aim of the technology was to make digital video files small enough to send over cell phones, and to then restore them to viewability once they arrived.7 JVT developed the H.264 video compression standard for technology that accomplished the desired compression and a number of parties, including Broadcom, adopted that technology.

Qualcomm held patents that covered technology following the H.264 standard. These were U.S. Patent Nos. 5,452,104 ('104 Patent) and 5,576,767 ('767 Patent), which addressed, respectively, an "Adaptive Block Size Image Compression Method and System" and an "Interframe Video Encoding and Decoding System." The patents were in existence while JVT did its work. Qualcomm subsequently claimed that Broadcom infringed these patents. Broadcom responded, in part, with a defense that Qualcomm's patents were unenforceable due to Qualcomm's failure to disclose the patents while participating in the JVT standard-setting process.

During pretrial discovery and most of the trial, Qualcomm denied that it participated in JVT's development of the H.264 standard and, hence, argued that it had no duty to tell JVT about the patents. Qualcomm's version of the facts surrounding the timing and the level of its involvement and its contentions as to what it should have disclosed were severely undercut when a witness admitted, on the stand in a seemingly Perry Mason-worthy moment of drama, that she had received JVT e-mails, thereby confirming the previously denied involvement in the JVT process.

The resulting sanction of \$8.5 million in fees and costs is used as an attention-getter in electronic discovery seminars by many,8 the author included. Given the widespread attention to these sanctions, the particular mistake that led to these notorious sanctions may be unlikely to occur again. Of more lasting importance, perhaps, are the reasons that the subjects of the 21 key e-mails affect the patent enforcement remedy in the case. This is the rarely considered "back story" to the commonly heard drama of discovery sanctions in Qualcomm. The court of appeals' decision resolving this issue provides a cogent discussion of oft-confused variations in equitable considerations underlying doctrines concerning "inequitable conduct" and "patent misuse."

Standard-Setting Organization Disclosure Policies

SSOs regularly require that participants in standard-setting processes disclose whether or not they have intellectual property rights relating to the standards being developed. To be sure, SSOs vary in the clarity and completeness of their policies, but the basic disclosure duties are clear.9

SSOs provide a public benefit in devising standards of two general types: minimum functional standards and interoperability standards, 10 The former type is easy to understand. One wants to be sure when one uses nuts and bolts, car seats, helmets, and the like that these items have been consistently made and will perform as expected. The second type of standard, concerning interoperability, is the type implicated in the JVT technology. If a consistently implemented compression technology adhering to the H.264 standard is used across different cell-phone models, then a video sent from one phone will be capable of being received and viewed on a different phone. Innovation and competition in the underlying products are fostered and consumers are better off.

One problem with intellectual property in the SSO context is that a patent can be asserted after an industry has committed to follow a standard covered by the patent, permitting what is quaintly identified in the legal literature as a "hold up." 11 The patent owner can demand tribute from those following the standard, threaten to seek an injunction, and dominate the industry. When this occurs, at a minimum, the patent owner may drive up competitors' costs and, therefore, consumers' prices. Where an SSO has clear rules to prevent a "hold up" and those rules are violated by the holder of an undisclosed patent, a court can decide that the violating patent owner cannot enforce its patent. SSOs can go farther, even requiring that participants make their patents available for licensing on reasonable and nondiscriminatory (RAND) terms. 12

Enforceability Analyses in Patent "Fraud," Inequitable Conduct, and Patent Misuse Cases

Before focusing our equitable lens on the SSO facts in Qualcomm, we should recognize that sometimes courts focus their analytical lenses too narrowly in evaluating patent enforceability, or even point these lenses in the wrong directions. Separate criteria for limiting patent enforceability based on the conduct of a patent holder have grown up in cases dealing with patent "fraud," inequitable conduct, and patent misuse. A number of decisions in these lines of cases appear to be either looking in the wrong direction to properly assess the relevant equitable factors or focusing so narrowly as to miss important equitable considerations because of underinclusiveness.

Cases that seem to look in the wrong direction to consider equitable factors include those that address the unenforceability of patents due to "technical fraud" towards the Patent Office, which may be either improper conduct towards the Patent Office that involves incomplete or inaccurate disclosures but is not fraud at all,13 or common law fraud involving a knowing and willful misrepresentation.14 These cases involve some sort of misconduct in obtaining a patent and effectively treat the resulting patent as tainted and unenforceable, thereby effectively ignoring the equity factors that may make this result somewhat unfair in a particular case. Qualcomm does not fit

either of the two "technical fraud" models.

Cases concerning inequitable conduct towards the Patent Office take a different approach to addressing equitable factors, an approach stemming from the roots of these cases in earlier case law concerning legal proceedings pursued with "unclean hands." Courts have long refused to permit plaintiffs to obtain an advantage in legal proceedings where the plaintiffs have approached or conducted the proceedings with unfair practices that have left the wrongdoers with an unfairly obtained status or "unclean hands." 15 This doctrine can be invoked in a way that is consistent with long-established equitable principles in any legal situation where the misconduct of plaintiffs is connected with the subject matter at issue.

In patent cases, an unclean hands defense first arose in situations involving oppressive patent licensing terms—what might be called unconscionable contracts in modern usage.16 An unclean hands defense was subsequently recognized for abusive activities of patent applicants—ensuring, for example, that patent applicants who lie to examiners in the Patent Office are not permitted to enforce the resulting patents. Today, these situations are generally not seen as a special variety of actions by parties with "unclean hands" but are rather referred to as involving "inequitable conduct" that must meet a specialized set of misconduct standards to limit patent enforceability. 17 Analyses in these inequitable conduct cases also appear to be pointed in the wrong direction to consider some relevant equitable remedy considerations by treating patents as irretrievably unenforceable once the specially required type of misconduct in obtaining the patents is shown,

Underinclusiveness in considering relevant equity factors is manifest in the use by courts of lists of patent misuse categories, which may correspond to the facts of historic cases but do not necessarily cover all situations raising important equitable considerations. While the extension of the unclean hands defense to patent cases, as discussed above, provides some historical and analytical guidance for patent misuse analyses as well as inequitable conduct analyses, recent patent misuse decisions have attempted to categorize, label, and list types of patent-related conduct that have been recognized to be misuse without tying these lists to underlying equitable considerations. The courts that have characterized, labeled, and listed instances of misuse seem to consider all misuse authority to stem from a common basis in antitrust law, even though the patent enforcement cases they are deciding vary from antitrust claims in ways that raise significant equitable considerations that are not taken into account. C.R. Bard, Inc. v. M3 Systems, Inc., 18 for example, discusses "classic grounds of patent misuse, such as tying or enforced package licensing or price restraints or extended royalty terms."19 More recently, Telecom Technical Services Inc. v. Rolm Co.20 found "that patent holders who unilaterally refuse to license their products are exempt from the antitrust laws unless one of three conditions exist [sic]: (1) the patent was obtained by fraud on the Patent Office, (2) the patent holder tied the sale of the patent to other goods or services, or (3) the patent holder brought sham enforcement proceedings to interfere with a competitor's business."21 These analyses seem underinclusive in their categorical approaches, without sufficient attention to

the case-specific considerations that would be appropriate in a complete equity analysis.

If one wanted to craft a more complete list of patent misuse subcategories, it would include patent abuses involving (1) tying situations,²² (2) price fixing,²³ (3) royalty abuses in charging for unpatented items,²⁴ (4) enforcing a fraudulently procured patent,²⁵ (5) overextended royalty terms,²⁶ (6) sham litigation,²⁷ (7) acquisition of patents to monopolize an industry,²⁸ (8) territorial restraints,²⁹ (9) extending royalty payments past expiration,³⁰ and (10) predatorily designing incompatibility and using patents to control components.³¹

Standard-setting manipulation has not, however, historically been dealt with in the "misuse" cases. ³² Rationales such as laches, ³³ estoppel, ³⁴ or implied license ³⁵—equitable doctrines—have provided equitable defenses to attempts to enforce patents by parties who have abused SSO processes. In addition, the anticompetitive abuse of standard-setting processes has raised antitrust claims such as those leading to the Federal Trade Commission's complaint and the defendant's consent decree in *In re Dell Computer Corp.* ³⁶

Another source of confusion is the use of the term "per se misuse" in some patent misuse cases. In Virginia Panel Corp. v. MAC Panel Co., 37 for example, the court described examples of per se patent misuse. However, the court in Virginia Panel only identified tying and collecting royalties beyond patent expiration as enumerated per se misuse examples, thus leaving open the question of what might make other types of patent-related practices per se misuse. We therefore appear to have two types of per se misconduct that are poorly defined and confusingly referred to by similar labels depending on the context: per se patent misuse, which serves as a defense to patent enforcement regardless of equity factors in particular cases, and per se anti-trust violations, which are independent sources of liability.38

In sum, inequitable conduct and patent misuse cases incorporate many sources of potential confusion: inequitable conduct cases appear to be a subset of unclean hands cases, technical fraud has two different meanings, lists of patent misuse categories are incomplete, and the per se label for patent-related misconduct has different meanings in different contexts. Proper analyses of equity considerations concerning patent enforcement also depend on the substantive and procedural contexts of the analyses—with very different equity considerations potentially arising in connection with a defense to an infringement accusation, a defendant's exceptional case claim, an FTC unfair trade practice case, an antitrust case brought by the United States, or a private antitrust counterclaim, Using the wrong analytic lens or looking in the wrong direction can lead one to miss equitable case features outside the field of view that are nonetheless particularly important in one of these contexts.

Unenforceability Species Emerging from Inequitable Conduct and Patent Misuse Cases

As a whole, cases addressing inequitable conduct and patent misuse have recognized two species of patent unenforceability due to equitable misconduct by patent owners: (1) unenforceability of patents that cannot be enforced until the misconduct ends and its effects are dissipated—the inequitable conduct

being "purged"—and (2) unenforceability of patents that are forever unenforceable because the misconduct related to the patents in the Patent Office cannot be "undone."³⁹

The first species of unenforceability, equitably recognizing the ability to "purge" the relevant misconduct, has been recognized in cases decided under patent misuse standards. In *Bard v. M3*, 41 for example, the court noted that "patent misuse arises in equity, and a holding of misuse renders the patent unenforceable until the misuse is purged; it does not, of itself, invalidate the patent."42

The initial point, stressing that patent misuse is addressed as an equity doctrine, is fundamentally important. A court sitting in equity decides with all the basic freedom to evaluate facts and misdeeds that equity historically provides. Patent misuse is not a body of "law." Rather, it is defined by a collection of fact scenarios considered by courts deciding in equity. Patents subject to a patent misuse defense are unenforceable until the particular circumstances of a case indicate that the misconduct supporting the defense has ended and that its consequences have been undone.

The second species of unenforceability involves misconduct that affects obtaining the patent itself and cannot be purged. The irretrievably unenforceable patent can be treated as if it were "invalid" due to "patent fraud." Patents subject to such a defense are unenforceable until the misconduct is ended and undone, but because the misconduct relates to the grant itself, the misconduct, although ended, can never be undone.

An understanding of these two species of unenforceability sets the stage for the court of appeals' ruling in *Qualcomm v. Broadcom*. There the court effectively defined a third species of unenforceability; limited unenforceability based on misconduct that irrevocably affects an industry and cannot be "purged" with respect to that industry, but that does not affect enforceability against products outside the industry affected by the misconduct.

Affirmance of the Inequitable Conduct Ruling

In analyzing Qualcomm's nondisclosure of its patent applications to JVT, the court of appeals considered (1) the existence of a disclosure duty, (2) the scope of the disclosure duty, and (3) whether there was a breach of the duty. After considering JVT's written policies and JVT participants' understanding of those policies, the court found there to be a duty of disclosure. JVT's requirements for disclosure of intellectual property rights included rights "associated with" the subject of JVT's task and rights that "reasonably might be necessary" in order to practice the standard. Qualcomm's narrower views, asserting that a disclosure duty only attached to a JVT participant who submitted a "technical proposal," were rejected by the district court in Qualcomm. The court held that Qualcomm violated its duty within the JVT SSO process by not disclosing that its '104 Patent and '767 Patent could provide a basis for suing companies that followed the JVT standard, and the court of appeals affirmed.44

Change in Remedy for Inequitable Conduct

What to do to a party engaging in "inequitable conduct" in an SSO process was the key question in *Qualcomm*—forever

bar it from enforcing the patents or permit it to "purge" the misuse? Consideration of this question led to a thoughtful evaluation of the scope of the equitable remedy rendered for Qualcomm's abusive conduct. The Qualcomm court concluded that the SSO scenario is different than the normally encountered patent misuse scenario, where it is possible to undo the misconduct and have a patent enforceable in the future, and also different from the patent fraud scenario, where a patent can never be enforced because of the breach of the uncompromising duty of candor to the Patent Office. SSOs exist so that an industry can cooperate to the extent needed to bring procompetitive innovations to fruition. An industry segment can develop around the SSO-developed standard. Thus, a patent owner who abuses an SSO process and therefore has patents that dominate the implementation of a standard resulting from an SSO process will be enjoined from using its patents in this way.

The trial court enjoined Qualcomm from ever enforcing the patents against anyone. The court of appeals found this went too far. The patents themselves were obtained before the JVT activities and could cover technology other than the H.264 compression technology addressed in the JVT SSO. Unlike "patent fraud," the patents themselves were not defective. But unlike "misuse," the consequences of abusive conduct could not be undone and misuse purged because an industry built up around the standard and enforcement of the patents would be unfair to that industry. The court of appeals limited the remedy to barring enforcement against anyone following the standard but did not prohibit enforcement against someone else practicing non-H.264 technology.

Conclusion

Traditional equity principles first developed in "unclean hands" analyses can be extended to SSO processes and can bar enforcement of a patent involved in misconduct depending on the relationship of the misconduct to (1) the existence of the patent itself; (2) the development of an industry surrounding the subject of the misconduct; or (3) practices that occur after issuance of the patent and development of the technology, such as specific licensing abuses. The remedy for patent infringement in the face of abusive practices by patent holders will be tailored to the misconduct of particular patent holders. Misconduct related to obtaining a patent will forever taint the patent and render it completely unenforceable. Misconduct (such as that in an SSO context) that encourages the development of an industry will preclude enforcement of the patents involved against participants in that industry, but not against others. Misconduct that is related to specific business practices such as abusive licensing will result in patents being unenforceable so long as the misconduct or its consequences remain, but enforceability may be restored if the misconduct is stopped and its consequences are undone.

Endnotes

- 1. Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004 (Fed. Cir. 2008).
- Qualcomm Inc. v, Broadcom Corp., 2007 U.S. Dist. LEXIS 57122, at *7 (S.D. Cal. Aug. 6, 2007).
 - 3. Broadcom Corp. v. Qualcomm Inc., 543 F.3d 683 (Fed. Cir. 2008).
 - 4. Knorr-Bremse Systeme Fuer Nutzfahrzeuge, GmbH v. Dana Corp., 383

- F.3d 1337, 1345 (Fed. Cir. 2004).
 - 5. In re Seagate Tech., LLC, 497 F.3d 1360 (Fed. Cir. 2007).
 - Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 310 (3d Cir. 2007).
- Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1008 (Fed. Cir. 2008).
- The complex fact, law, and professional features of the Qualcomm discovery dispute are still in contention in Civil Action 05-cv-01958-B-BLM, where the sanctioned attorneys' brief was filed on November 2, 2009.
- 9. Rambus Inc. v. Infineon Tech. AG, 318 F.3d 1081, 1096 (Fed. Cír. 2003). See also U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (Apr. 2007) [hereinafter Antitrust Enforcement].
 - 10. Id.
- Id.; Broadcom Corp., 501 F,3d at 310; Mark A. Lemley, Intellectual Property Rights and Standard-Setting Organizations, 90 CAL. L. Rev. 1889, 1902 (2002).
 - 12. Antitrust Enforcement, supra note 9.
- 13. Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172, 179 (1965) (Harlan, J., concurring).
- 14. Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059 (Fed. Cir. 1998).
 - 15. Keystone Driller Co. v. Gen. Excavator Co., 290 U.S. 240 (1933).
 - 16. Pope Mfg. Co. v. Gormully, 144 U.S. 224 (1892).
- 17. Kingsland v. Dorsey, 338 U.S. 318 (1949).
- 18. 157 F.3d 1340 (Fed. Cir. 1998).
- 19. Id. at 1373.
- 20. 388 F.3d 820, 73 U.S.P.Q.2d 1001 (11th Cir. 2004).
- 21. Id. at 827 n.7.
- 22, Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 492 (1942); Illinois Tool Works Inc. v. Indep. Ink, Inc., 203 F.3d 1322, 53 U.S.P.Q.2d 1852 (Fed. Cir. 2000), U.S. v. Westinghouse Elec. Corp., 648 F.2d 642, 31 Fed. R. Serv. 2d 952, 1981-1 Trade Cas. (CCH) ¶ 64,112 (9th Cir. 1981), aff'g 471 F. Supp. 532 (N.D. Cal. 1978); Bard, 157 F.3d 1340; Telecom, 388 F.3d 820 (a straight out antitrust case with no patent infringement component); USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 1982–83 Trade Cas. (CCH) ¶ 65,077, 216 U.S.P.Q. 959 (7th Cir. 1982); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 1990 U.S. App. LEXIS 14278, 15 U.S.P.Q.2d 1846, Copyright L. Rep. (CCH) ¶ 26,619, 1990-2 Trade Cas. (CCH) ¶ 96,145, 18 Fed. R. Serv. 3d 130 (4th Cir. 1990); Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 188–93, 100 S. Ct. 2601, 65 L. Ed. 2d 696 (1980).
- United States v. Line Materials Co., 333 U.S. 287, 68 S. Ct. 550, 92 L.
 Ed. 701 (1948); Westinghouse, 648 F.2d 642; Bard, 157 F.3d 1340; USM, 694
 F.2d 505; Lasercomb, 911 F.2d 970; Dawson, 448 U.S. 176.
- 24. Line Materials Co., 333 U.S. 287; Westinghouse, 648 F.2d 642; C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340 (Fed. Cir. 1998); USM, 694 F.2d 505; Lasercomb, 911 F.2d 970; Dawson, 448 U.S. 176; Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 140–41 (1969).
- Walker Process Equip., Inc. v. Food Mach. & Chem. Corp., 382 U.S.
 172 (1965); Westinghouse, 648 F.2d 642; Telecom, 388 F.3d 820; Lasercomb,
 911 F.2d 970.
 - 26. Bard, 157 F.3d 1340; USM, 694 F.2d 505; Dawson, 448 U.S. 176.
- Telecom Tech. Servs. Inc. v. Rolm Co., 388 F.3d 829 (11th Cir. 2004);
 In re Indep. Servs. Organization Antitrust Litig., 203 F.3d 1322 (Fed. Cir. 2000).
 - 28. U.S. v. Westinghouse Elec. Corp., 648 F.2d 642 (9th Cir. 1981).
 - Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970 (4th Cir. 1990).
 - 31, C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340 (Fed. Cir. 1998).
- Static Control Components v. Lexmark Int'l, 487 F. Supp. 2d 830 (E.D. Ky. 2007).
- Stambler v. Diebold Inc., 11 U.S.P.Q.2d 1709, 1714–15 (E.D.N.Y. 1988).
- Potter Instrument Co. Inc. v. Storage Tech. Corp., 207 U.S.P.Q. 763 (E.D. Va. 1980).
- Wang Labs, Inc, v. Mitsubishi Elec., 30 U.S.P.Q.2d 1241 (C.D. Cal. 1993), aff^ad, 103 F.3d 1571 (Fed. Cir. 1997).
 - 36. 121 F.T.C. 616, 1996 FTC LEXIS 291 (1996) (Final Consent Decree);

Continued on 64

Standard Setting

Continued from page 53

In re Dell Computer Corp., No. 9S1-0097, 1995 FTC LEXIS 466 F.T.C. (Oct. 20, 1995). See also In Re Union Oil of California, Docket No. 9305, 2004 FTC LEXIS 115 (F.T.C. July 6, 2004).

37. 133 F.3d 860, 869 (Fed. Cir. 1997).

38. "Types of agreements that have been held per se illegal include agreements among competitors to fix prices or output, rig bids, or share or divide markets by allocating customers, suppliers, territories, or lines of commerce." DEP'T OF JUSTICE & FED. TRADE COMM'N, MERGER GUIDELINES (2000).

39. See, e.g., Molins PLC v. Textron, 48 F.3d 1172, 1182 (Fed. Cir. 1995) (documents "not cited when they should have been").

40. Baker-Cammack Hosiery Mills, Inc. v. Davis Co., 181 F.2d 550 (4th Cir. 1950); Berlenbach v. Anderson & Thompson Ski Co., Inc., 329 F.2d 782 (9th Cir. 1964).

41. C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340 (Fed. Cir. 1998).

42. Id. at 1373.

43. Golden Valley Microwave Foods, Inc. v. Weaver Popcorn Co., Inc., 837 F. Supp. 1444, 1478 (N.D. Ind. 1992); J.P. Stevens & Co. Inc. v. Lex Tex, Ltd., Inc., 747 F.2d 1553 (Fed. Cir. 1984); but see Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1069 (Fed. Cir. 1998).

44. Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1024-26 (Fed. Cir. 2008).