

1 Following hearing on the Order to Show Cause and careful consideration of relevant
2 court and deposition transcripts, declarations, and other documents submitted by both
3 parties, the Court hereby issues the following remedy for Qualcomm's waiver: that the '104
4 and '767 patents, their continuations, continuations-in-part, divisions, reissues, or any other
5 dependent or derivative patents of either patent, shall be and are hereby ordered
6 unenforceable.

7
8 **II. BACKGROUND**

9 Qualcomm filed the present suit against Broadcom for patent infringement of the
10 '104 and '767 patents on October 14, 2005, based on Broadcom's manufacture, sale, and
11 offers to sell H.264-compliant products. (Doc. No. 1.) Broadcom filed its First Amended
12 Answer and Counterclaims on December 8, 2006, in which it alleged (1) a counterclaim
13 that the '104 patent is unenforceable due to inequitable conduct; and (2) a Third
14 Affirmative Defense that the '104 and '767 patents are unenforceable due to waiver. (Doc.
15 No. 370.)

16 A jury trial was held on the legal issues from January 9, 2007, to January 26, 2007.
17 The jury unanimously returned a verdict (1) in favor of Broadcom and against Qualcomm
18 of non-infringement of the '104 and '767 patents; and (2) in favor of Qualcomm and
19 against Broadcom for non-obviousness of the '104 and '767 patents. (Doc. No. 499.) The
20 jury also unanimously returned an advisory verdict on the equitable issues: (1) finding by
21 clear and convincing evidence in favor of Broadcom and against Qualcomm that the '104
22 patent is unenforceable due to inequitable conduct; and (2) finding by clear and convincing
23 evidence in favor of Broadcom and against Qualcomm that the '104 and '767 patents are
24 unenforceable due to waiver. (Id. at 14.)

25 The Court held an evidentiary hearing on the equitable issues of inequitable conduct
26 and waiver on February 9, 2007. On March 21, 2007, the Court entered an Order: (1)
27 finding in favor of Qualcomm and against Broadcom on Broadcom's counterclaim of
28

1 inequitable conduct as to the '104 patent; (2) finding in favor of Broadcom and against
2 Qualcomm on Broadcom's affirmative defense that the '104 and '767 patents are
3 unenforceable due to waiver based on Qualcomm's conduct before the Joint Video Team
4 ("JVT"), the standards-setting body that created the H.264 standard; and (3) setting hearing
5 on an Order to Show Cause as to what the appropriate remedy for Qualcomm's waiver
6 should be. (Doc. No. 528 at 2.) The Court conducted a hearing on its Order to Show
7 Cause on June 25, 2007.

8 After the verdict was entered, Broadcom again demanded discovery of Qualcomm's
9 records that previously had been concealed, but whose possible existence was only
10 revealed during Broadcom's cross-examination of Qualcomm witness Viji Raveendran on
11 one of the last days of trial. Thereafter, after over three more months of denials, refusals,
12 and opposition, Qualcomm reversed its position, allegedly to avoid further dispute over the
13 matter, and produced on April 13, 2007, over 110,000 pages of emails, company
14 correspondence, and memoranda, and on May 15, 2007, over 120,000 more pages, some of
15 which have now been filed with the Court, none of which have been disputed by
16 Qualcomm.

17
18 **III. DISCUSSION**

19 **A. STANDARD OF LAW**

20 As the Court found in its March 21 Order, Broadcom has the burden of proving its
21 affirmative defense of waiver and remedy therefor by clear and convincing evidence.
22 (Doc. No. 528 at 13.)

23 A district court may in its discretion hold a patent unenforceable in considering an
24 affirmative defense of inequitable conduct by inventors and/or their agents before the
25 United States Patent and Trademark Office ("PTO"), but the remedy depends on equitable
26 considerations arising from the circumstances involved. See Refac Int'l, Ltd. v. Lotus Dev.
27 Corp., 81 F.3d 1576, 1581, 1585 (affirming a finding of unenforceability based on an

1 inequitable conduct affirmative defense and holding that a “district court must . . . weigh
2 the threshold findings of materiality and intent in light of all the circumstances to determine
3 whether they warrant a conclusion” of inequitable conduct).

4 As the Court stated in its Order finding waiver, “[i]n that context, the Court here
5 considers with respect to waiver the extent of the materiality of the omitted information and
6 the circumstances surrounding [Qualcomm’s] omissions in connection with the proceedings
7 in the JVT.” (Doc. No. 528 at 33.) While the Court is still unable to find, nor have the
8 parties presented, case guidance for an equitable remedy to a finding of waiver by a
9 patentee or assignee as an affirmative defense, it appears to the Court, as it stated in its
10 Order, that “the remedy should not be automatic, but should be fashioned to give a fair,
11 just, and equitable response reflective of [Qualcomm’s] offending conduct.” (Id.)

12 The Court has not found a patent decision assessing the remedy for a finding of
13 waiver based upon conduct of silence in the face of a duty to speak. The Rambus case, in
14 which the Federal Circuit established the obligation to speak, did not involve a remedy for
15 a breach of that obligation, because the party which allegedly violated the rule had not
16 possessed intellectual property rights that read on or directly applied to the activities of the
17 standards development process. See Rambus Inc. v. Infineon Techs. AG, 318 F.3d 1081,
18 1102 - 05 (Fed. Cir. 2003). Therefore, this Court, by analogy to the available remedies for
19 redressing inequitable conduct before the United States Patent and Trademark Office
20 (“PTO”), holds that the remedy available here may vary from no remedy to declaring the
21 involved patents totally unenforceable.

22 Qualcomm argues that Broadcom may not have any remedies beyond itself, because
23 it raised the waiver issue only by a separate affirmative defense and not by a counterclaim
24 or cross-claim. This contention is without merit. The Federal Circuit has upheld the
25 unenforceability of a patent to the world due to inequitable conduct before the PTO even
26 when pled as an affirmative defense by the defendant. See McKesson Info. Solutions, Inc.
27 v. Bridge Med., Inc., 487 F.3d 897, 908, 926 (Fed. Cir. 2007); Semiconductor Energy Lab.

1 Co., Ltd. v. Samsung Elecs. Co., Ltd., 204 F.3d 1368, 1372, 1378 (Fed. Cir. 2000); Refac
2 Int'l, Ltd. v. Lotus Dev. Corp., 81 F.3d 1576, 1578, 1585 (Fed. Cir. 1996). Therefore, the
3 Court finds that it may award remedy for a waiver affirmative defense beyond
4 unenforceability only as to Broadcom.

5
6 **B. ANALYSIS**

7 **1. Overview of the Joint Video Team (“JVT”), related standards**
8 **organizations, their Intellectual Property Rights (“IPR”) Policy**
9 **and Guidelines, and Qualcomm**

10 In late 2001, the joint project JVT was launched by two parent standards bodies: (1)
11 the Video Coding Experts Group (“VCEG”) of the International Telecommunication Union
12 Telecommunication Standardization Sector (“ITU-T”) and (2) the Moving Picture Experts
13 Group (“MPEG”) of the International Organization for Standardization (“ISO”) /
14 International Electrotechnical Commission (“IEC”). (Def’s Trial Ex. 5163 (JVT Terms of
15 Reference [“ToR”]); Trial Tr., 267, Jan. 17, 2007.)

16 The JVT was created to enhance standard video coding performance in the face of
17 limited bandwidth or storage capacity.¹ As a joint project, the JVT would be able to more
18 efficiently produce a single “technically aligned, fully interoperable” standard that would
19 offer “the best possible technical performance under the practical constraints of being
20 implementable on various platforms and for various applications.” (JVT ToR at 1.)

21 According to the JVT ToR, JVT meetings are “open to, and contributions accepted
22 from, all parties qualified for participation in meetings according to the rules of either
23 parent body.” (JVT ToR at 3.) As sector members of the ITU-T, Qualcomm and
24 Broadcom can “influence a great variety” of the activities of the Telecommunication

25 _____
26 ¹ See Press Release, ITU-T, ITU-T and ISO/IEC to produce next generation
27 video coding standard: Joint Video Team to Deliver Quality Improvement (Feb. 8, 2002),
28 <http://www.itu.int/ITU-T/news/jvtpro.html>.

1 Standardization Sector, including the JVT, by “presenting [their] views” and “participating
2 actively.”² Qualcomm and Broadcom must annually pay a minimum of 31,800 Swiss
3 Francs (approximately \$26,500) to enjoy the benefits of Sector Membership in the ITU-T,
4 but may annually pay up to 2,544,000 Swiss Francs (approximately \$2,4119,000), with
5 higher contributions correlating to a higher class of sector member.³

6 The American National Standards Institute (“ANSI”) is the United States’
7 representative member in both the ISO and IEC, as the national body most representative of
8 standardization and electrotechnical standardization, respectively, in the United States.⁴ As
9 Company Members of ANSI, Qualcomm and Broadcom enjoy the privilege of “active
10 participation in ANSI and its programs,” including the ISO and IEC and by extension the
11 JVT, by paying annual dues ranging from \$750 to \$25,000 depending on their global sales
12 revenue.⁵

14 ² See ITU-T Membership, <http://www.itu.int/ITU-T/membership/sector.html> (last
15 visited Jul. 17, 2007); ITU Global Directory,
16 http://www.itu.int/cgi-bin/htsh/mm/scripts/mm.list?_search=SEC&_languageid=1 (last
visited Aug. 6, 2007).

17 ³ See How to join as a Sector Member,
18 <http://www.itu.int/ITU-T/membership/join-sector.html> (last visited Aug. 6, 2007).

19 ⁴ See Member bodies,
20 [http://www.iso.org/iso/en/aboutiso/isomembers/MemberList.MemberSummary?MEMBER
21 RCODE=10](http://www.iso.org/iso/en/aboutiso/isomembers/MemberList.MemberSummary?MEMBERCODE=10) (last visited Jul. 17, 2007); Members of the IEC,
22 [http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=e&wwwprog=membrs3.
23 p](http://www.iec.ch/cgi-bin/procgi.pl/www/iecwww.p?wwwlang=e&wwwprog=membrs3.p) (last updated Jul. 18, 2007); Overview of the ISO System,
<http://www.iso.org/iso/en/aboutiso/introduction/index.html> (last modified Sept. 12,
2006); IEC Membership, <http://www.iec.ch/about/members-e.htm> (last visited Aug. 6,
2007).

24 ⁵ See ANSI Membership Roster,
25 <https://eseries.ansi.org/Source/directory/Search.cfm> (last visited Jul. 17, 2007); ANSI
26 Membership - A Value Proposition,
<http://www.ansi.org/membership/overview/overview.aspx?menuid=2> (last visited Aug. 6,
2007); ANSI Company Membership Application,
27 <http://publicaa.ansi.org/sites/apdl/Documents/Membership/ANSI%20Member-Company->

1 Qualcomm has paid hundreds of thousands of dollars to ANSI and the ITU-T to reap
2 the benefits of membership, including the entitlement to actively participate in the JVT and
3 the creation of the H.264 standard. These standards organizations pool resources to
4 efficiently create universal technology standards for the benefit of (1) the world through the
5 advancement of technology and (2) companies worldwide such as Qualcomm through
6 greater cross-platform product compatibility and therefore revenue.

7 According to the JVT ToR, the JVT “progress[es] in compliance with the
8 Intellectual Property Rights (“IPR”) policies and IPR reporting requirements and
9 procedures of both [parent] organisations [sic]” regarding patent and copyright issues.
10 (JVT ToR at 4.) More specifically, the JVT collects IPR information during the
11 standardization process as follows:

12 According to the ITU-T and ISO/IEC IPR policy, members/experts are
13 encouraged to disclose as soon as possible IPR information (of their own or
14 anyone else’s) associated with any standardization proposal (of their own or
15 anyone else’s). Such information should be provided on a best effort basis.

16 For collecting such information, JVT has decided to use it’s [sic] own Patent
17 Declaration form – note that this is distinct from the *ITU ISO IEC Patent
18 Statement and Licensing Declaration* that is to be submitted to the ISO
19 Secretary General and ITU TSB Director when the contributed technology
20 becomes part of the final standard.

21 (JVT ToR at 9.) This language applies to Qualcomm, as a member of the ITU-T and
22 participant in the JVT.

23 In the sample Patent Disclosure Form included in the ToR, the JVT reiterates:

24 JVT requires that all technical contributions be accompanied with this form.
25 *Anyone* with knowledge of any patent affecting the use of JVT work, of their
26 own or of any other entity (“third parties”), is strongly encouraged to submit
27 this form as well.

28 (JVT ToR at 12.) The JVT explains that form submissions should be made on “a best
effort, good faith basis,” as “[t]he intent is that the JVT experts should know in advance of
any patent issues with particular proposals or techniques, so that these may be addressed

2006.pdf (last visited Aug. 6, 2007).

1 well before final approval.” (Id.) If the submitter has a patent “associated with the
2 technical content” of the standard being created by the JVT, the submitter must indicate on
3 the form whether it will: (1) grant royalty-free licenses to practice the patent; (2) grant
4 licenses “on a worldwide, non-discriminatory basis and on reasonable terms and
5 conditions”; (3) grant royalty-free licenses on the condition that all other patent holders do
6 the same; or (4) not grant any of the aforementioned licenses, in which case the standard
7 will be designed so as not to cover the patent. (JVT ToR at 13.)

8 As for the “ITU ISO IEC Patent Statement and Licensing Declaration” that must be
9 submitted separately to the ITU and ISO before final approval of the standard being created
10 by the JVT, “any party participating in the work of the ITU, ISO or IEC should” alert these
11 bodies to the existence of patents “embodied fully or partly” in a standard under
12 consideration.⁶ Patent holders submitting this form to the ITU and ISO have similar
13 licensing options as offered by the JVT form above: they must (1) grant royalty-free
14 licenses to practice their patent; (2) grant licenses “on a non-discriminatory basis on
15 reasonable terms and conditions”; or (3) not grant any of the aforementioned licenses, in
16 which case the standard will be designed so as not to cover the patent.⁷ This language also
17 applies to Qualcomm, as a “party participating in the work of the ITU, ISO or IEC” by way
18 of the JVT.

19 As held by this Court in its March 21 Order and described in more detail below, (1)
20 waiver of patent rights must be shown by clear and convincing evidence; (2) JVT
21 participants treated the JVT IPR policies as imposing a duty to disclose patents that
22 reasonably may be essential to practice the H.264 standard; (3) the ‘104 and ‘767 patents
23 reasonably may be essential to practice the H.264 standard; (4) Qualcomm participated in

25 ⁶ Common Patent Policy for the ITU-T/ITU-R/ISO/IEC,
26 <http://www.itu.int/ITU-T/dbase/patent/patent-policy.html> (last visited Aug. 6, 2007).

27 ⁷ See id.

1 the JVT as early as January 2002; (5) Qualcomm had knowledge that the ‘104 and ‘767
2 patents reasonably might be essential to practice the H.264 standard; and (6) therefore,
3 Qualcomm had a duty to disclose the ‘104 and ‘767 patents to the JVT.

4 However, instead of disclosing the ‘104 and ‘767 patents to the JVT and offering to
5 license them royalty-free or under non-discriminatory, reasonable terms during the
6 development phase of the JVT work on the H.264 standard, Qualcomm closely monitored
7 and participated in the development of the H.264 standard, all the while concealing the
8 existence of at least two patents it believed were likely to be essential to the practice of the
9 standard, until after the development was completed and the standard was published
10 internationally. Then, without any prior letter, email, telephone call, or even a smoke
11 signal, let alone attempt to license Broadcom, Qualcomm filed the instant lawsuit against
12 Broadcom for infringement of the ‘104 and ‘767 patents, seeking damages and permanent
13 injunction against Broadcom based on its development and manufacture of H.264
14 compliant products. Qualcomm sought to unfairly benefit from having subverted the
15 standards-making process of the JVT and, as the Court found in its March 21 Order,
16 waived its right to enforce the patents-in-suit.

17

18 **2. The Court FINDS by clear and convincing evidence that**
19 **Qualcomm participated in the JVT as early as January 2002**

20 In the Court’s March 21 Order finding in favor of Broadcom on its affirmative
21 defense of waiver, the Court had already found by clear and convincing evidence that
22 Qualcomm participated in the JVT as early as September 2002. (Doc. No. 528 at 22.)
23 However, with the new evidence produced by Qualcomm post-trial, the Court **FINDS** well
24 beyond clear and convincing evidence that Qualcomm participated in the JVT as early as
25 January 2002, well before the release of the H.264 standard in May 2003. The evidence
26 unequivocally contradicts Qualcomm’s assertions at summary judgment, during trial, and at
27 the post-trial hearing on waiver and inequitable conduct that it did not participate in the

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1 JVT until after May 2003.

2 As early as January 2002, Qualcomm hired an outside consultant, Jordan Isailovic,
3 to attend JVT meetings on Qualcomm’s behalf and to send reports to Qualcomm
4 summarizing the progress of the JVT. For example, after ostensibly attending a JVT
5 meeting in Geneva, Switzerland that took place from January 29 to February 1, 2002, Mr.
6 Isailovic sent an email to three Qualcomm employees, including Qualcomm’s initial Rule
7 30(b)(6) witness Christine Irvine, on February 11, 2002, with the subject heading “JVT
8 Geneva Report,” stating the following:

9 The Report on the JVT Geneva Meeting is included as an attachment. As you
10 can see, the Report has many details. I hope that you and your team can get a
good idea about JVT . . .

11 If you or any member of your team needs any of the documents mentioned in
12 the Report, please let me know and I will get it.

13 (Doc. 543-2, Ex. A, Tab 3 at 24, Tab 4 74.)

14 Two days later on February 13, 2002, Ms. Irvine forwarded Mr. Isailovic’s email to
15 six other Qualcomm employees, including Qualcomm trial witness and senior staff
16 engineering manager Viji Raveendran and Qualcomm deposition witness James Determan.
17 (Id., Tab 5 at 77.) On February 25, 2002, Ms. Irvine forwarded by email over three pages
18 of notes she took on her most recent JVT phone conference to fellow Qualcomm
19 employees Raveendran and Jay Yun. (Id., Tab 7 at 83.) The next day on February 26,
20 2002, Ms. Raveendran sent an email to two Qualcomm employees with the subject heading
21 “JVT mtg tomorrow” that stated, “Chris is going to the JVT mtg. and will be driving
tomorrow.” (Id., Tab 8 at 88.)

22 On March 5, 2002, Qualcomm consultant Isailovic sent an email to five Qualcomm
23 employees, Ms. Irvine, Ms. Raveendran, Mr. Determan, John Ratzel, and Amnon Silberger
24 with the subject heading “Requested Documents and Info” that stated in part as follows:

25 John, Chris at all [sic],

26 Here is the response to list of documents and info you requested today:
27
28

- 1 1. JVT, sw for the TML 9.x . . .
- 2 2. MPEG Web site: . . .
- 3 3. JVT, ABT example document: See the attachment . . .
- 4 4. Contact information for the Thomson JVT expert who has software for the H.26L [working name for the standard that became H.264]: . . .

5 Let me know if you need anything else.

6 Jordan

7 (Id., Tab 9 at 90 - 91.) The following day on March 6, 2002, Mr. Isailovic sent another
8 email to Qualcomm colleagues Irvine, Ratzel, Raveendran, Silberger, Determan, and Steve
9 Morley, with the subject heading “JVT/H26L” and an attached file “jm17.zip” that stated:

10 This may be the latest version (evaluable [sic]) . . .

11 PS: Chris, please forward this to the rest of the group; I don’t have all
12 addresses.

13 (Id., Tab 10 at 94.)

14 Post-trial, Qualcomm produced at least 118 additional emails discussing the work of
15 the JVT sent between (1) Qualcomm employees, including Ms. Irvine, Ms. Raveendran,
16 and Mr. Determan; (2) Qualcomm consultant Isailovic; and/or (3) a Qualcomm email list
17 “dc-system-eng” dated from March 11, 2002, to July 22, 2004. (Id., Tabs 12 - 129.) One
18 hundred seven of these emails were sent before the H.264 standard was released in May
19 2003. (Id., Tabs 12 - 118.)

20 Not only did Qualcomm consultant Isailovic attend JVT meetings as early as
21 January 2002, Qualcomm employees have been attending JVT meetings “for a while”
22 before April 2002, well before the H.264 standard was released in May 2003. Qualcomm
23 employee Amnon Silberger wrote an email to four other Qualcomm employees, including
24 Mr. Yun, on April 30, 2002, which stated:

25 We have been attending these standard body meetings for a while now.
26 These are the MPEG/JVT/JPEG meetings and the SMPTE meetings. To ease
27 the load, all the system engineers in our group rotate in attending these
28 (Chris, Jay, Viji, Jim Determan and myself).

29 (Id., Tab 44 at 306.) Messrs. Yun and Silberger attended the May 2002 JVT meeting in
30 Fairfax, Virginia. On May 8, 2002, Mr. Yun sent a three-page meeting report email to

1 eight Qualcomm employees, including Ms. Irvine, Ms. Raveendran, Mr. Determan, and Mr.
2 Silberger, with the subject header “WG11 (MPEG Fairfax - day 3)” that stated explicitly,
3 “I’ve attended some JVT meetings and saw some demo (so did Amnon).” (Id., Tab 57 at
4 361.)

5 Furthermore, Qualcomm voted on ballots affecting JVT as early as June 2002. On
6 June 11, 2002, Mr. Yun wrote an email to Ms. Irvine, Ms. Raveendran, Mr. Silberger, and
7 Mr. Determan stating the following:

8 Below is an email ballot for L3.1 (USNB [United States National Body] for
9 MPEG). It calls for an ad hog [sic] group to collect and generate comments
10 on US comments on JVT CD (Committee Draft). By not replying to this
11 email, we agree to the formation of the AHG [ad hoc group].

12 (Id., Tab 70 at 415.) Mr. Yun sent another email to those same four Qualcomm employees
13 the same day, stating:

14 One more email ballot from L3.1.

15 This has two questions, the first one approves the REGISTRATION of JVT
16 CD and the second one approves the CD with a conditional disapprove,
17 which means that the USNB has some comments that it wishes to be
18 reflected.

19 I don’t see any reason we should disagree with the two questions. We need
20 not do anything to do so. Let me know if any of you want to investigate this
21 further and discuss.

22 (Id., Tab 71 at 419.)

23 Qualcomm’s post-trial production of documents directly and unequivocally exposes
24 as blatantly false Qualcomm’s steadfast assertions at summary judgment, during trial, and
25 at the post-trial hearing on waiver and inequitable conduct that it did not participate in the
26 JVT until after May 2003. The Court **FINDS** well beyond clear and convincing evidence
27 that Qualcomm participated in the JVT from as early as January 2002, even earlier than the
28 Court originally found in its March 21 Order and, more importantly, well before the JVT
released the H.264 standard in May 2003. Participation does not require submission of
proposals, speeches, objections or leadership roles. The Court finds Qualcomm’s
involvement to be vigorous participation -- a difference appears to the Court to be the

1 motive for participation -- i.e., to insulate its IPR from the work of the JVT so as to
2 preserve it for unilateral enforcement if that became possible after the H.264 standard was
3 settled upon.

4
5 **3. The Court FINDS by clear and convincing evidence that**
6 **Qualcomm was aware as early as August 2002 that JVT**
7 **participants treated the JVT IPR policies as imposing a duty to**
8 **disclose patents that reasonably may be essential to the H.264**
9 **standard**

10 In the Court's March 21 Order finding in favor of Broadcom on its affirmative
11 defense of waiver, the Court found by clear and convincing evidence that JVT participants
12 treated the JVT IPR policies as imposing a duty to disclose patents that reasonably may be
13 essential to the H.264 standard. With the new evidence produced by Qualcomm post-trial,
14 the Court now **FINDS** by clear and convincing additional evidence that Qualcomm was
15 aware of this treatment by JVT participants as early as August 2002.

16 In August 2002, Qualcomm consultant Isailovic forwarded an email to Qualcomm
17 employees Ratzel, Determan, Irvine, Raveendran, Silberger, and Yun with the subject
18 heading "Fwd: [jvt-ipr] Re: Face-to-Face JVT IPR Meeting." (Doc. No. 543-2, Ex. A, Tab
19 92 at 529.) The body of the forwarded email stated in pertinent part:

20 The future licensing terms [for H.264 / MPEG-4 AVC] will be defined by the
21 holders of essential patents; at this time it is unknown who are these patent
22 holders, so this needs to be determined first. The question is how. In my
23 understanding, the objective is to invite "potential holders of essential
patents" to the face-to face-meeting [sic] to discuss this issue. Therefore in
my understanding the most important agenda point is the procedure to
identify essential patent holders in an objective manner.

24 (Id., Tab 92 at 530 - 31.)

25 Then in September 2002, Mr. Isailovic forwarded another email to Qualcomm
26 employees Morley, Ratzel, Determan, Irvine, Raveendran, Silberger, and Yun with the
27 subject heading "Fwd: [jvt-ipr] Call for H.264 / MPEG-4 AVC [Advanced Video Coding]

1 patents.” (Doc. No. 543-2, Ex. A, Tab 94 at 545.) The body of the forwarded email stated
2 in pertinent part:

3 This is to let you (as you may have noticed already that MPEG LA is calling
4 for essential MPEG-4 AVC/ H.264 patents, with the aim to come to a joint
license soon.

5 (Id., Tab 94 at 546.)

6 One month later in October 2002, Mr. Isailovic forwarded an email to Qualcomm
7 employees Ratzel, Raveendran, Determan, Irvine, Silberger, and Yun, which Ms.
8 Raveendran in turn forwarded to two other Qualcomm employees with the subject heading
9 “Fwd: [jvt-ipr] Confirmation of JVT IPR meeting in Geneva.” (Doc. No. 543-2, Ex. A,
10 Tab 97 at 567.) In the body of her email, Ms. Raveendran wrote, “FYI. Some information
11 on licensing issues and IPR in JVT.” (Id.) The body of the forwarded email listed a
12 suggested agenda for the JVT-IPR meeting open to all JVT and IPR experts at the Geneva
13 JVT conference, which included (1) an “(ongoing) determination of essential patent
14 holders” and (2) the “expected process once essential patent holders are identified.” (Id.,
15 Tab 97 at 568.) These three emails demonstrate that Qualcomm was aware as early as
16 August 2002 that the JVT was actively attempting to identify holders of patents essential to
17 the H.264 standard.

18 Later, in September 2003, Qualcomm employee Harinath Garudadri wrote an email
19 to another Qualcomm employee and a Qualcomm email list “multimedia.all” with his
20 “notes from the first day of the JVT meeting.” (Id., Tab 120 at 682.) One of Mr.
21 Garudadri’s bullet points was:

22 IPR policies of [JVT parent body] VCEG and ITU. Gary said **formal**
23 **notification was required.** List of IPR holders for H.264/AVC is in
Appendix F of MPEG doc and ITU-T web site. Each contribution has the
24 IPR statements at the end.

25 (Id.) (emphasis added.) JVT chairman Gary Sullivan confirmed at trial that he delineated
26 the IPR policy of the JVT at the beginning of every JVT meeting, and from Garudadri’s
27 email, Qualcomm was aware at least by September 2003 that formal IPR notification was

1 consistently requested of all IPR holders even if they did not make technical proposals.
2 (Trial Tr., 43 - 44, Jan. 18, 2007.) Since, as established above, Qualcomm had been
3 attending JVT meetings as early as January 2002 in which Mr. Sullivan routinely repeated
4 this IPR policy at each meeting, the Court concludes that Qualcomm was well aware of the
5 policy even earlier than that.

6 Furthermore, amongst the documents Qualcomm produced post-trial was Philips
7 International's June 21, 2002, letter to the ISO International Technology Task Force
8 accompanying its JVT Patent Disclosure form, which made it clear that Philips treated the
9 JVT's IPR policies as imposing a duty to disclose. (Doc. No. 543-2, Ex. A, Tab 74.)

10 Under the subject heading "Re: JVT," Philips wrote:

11 In response to the RFTI [Request for Technical Information] made at the
12 MPEG meeting May 6-10, 2002 we submit in the **required** JVT Patent
13 Disclosure Form, a list of Philips' patents which have been deemed necessary
14 for the implementation of MPEG2 Video, and which have been **deemed**
15 **necessary for the implementation of the JVT Baseline and/or Main**
16 **Profiles.**

17 Philips has made the listed patents available for implementation of the
18 MPEG2 Video standard, in accordance with ISO IPR rules, on reasonable and
19 non-discriminatory terms. To be consistent and to avoid discriminating
20 against licensees under the MPEG2 Video standards, Philips is again
21 prepared to make these patents available under reasonable and non-
22 discriminatory terms for the JVT Baseline and Main Profiles.

23 (Id., Tab 74 at 435) (emphasis added.) From this, Qualcomm was aware that JVT
24 participant Philips viewed the JVT Patent Disclosure Form as "required" for patents
25 "deemed necessary for the implementation of the JVT Baseline and/or Main Profiles."
26 Qualcomm was further aware that Philips was prepared to license its patents for the JVT
27 standard "[t]o be consistent" with "[JVT parent] ISO IPR rules."

28 Later in this letter, expressing concern that "the JVT will not be in a position to take
an informed decision on the feasibility of a royalty-free Baseline Profile," Philips stated

Video compression technology has attracted wide interest in the electronics
industry for quite some years. As a consequence many patents and patent
applications exist in many countries of the world covering not only the basics
of compression technology, but also many varieties within such compression
schemes.

1 To our mind it is an illusion to assume[] that it would be possible to ensure a
2 royalty free JVT Baseline Profile by the evaluation effort based on the patents
3 now being submitted. First, there is a very substantial risk that the submitted
4 list of patents is not complete. Second, an effort, undertaken to avoid the use
5 of patent rights that are not available under royalty-free conditions, could
6 well result in the use of other not yet identified patent rights. Both issues
7 place at the end the so defined JVT Standard in an even much worse position
8 when patents of not-involved companies start playing a role.

9 (Id., Tab 74 at 435 - 36.) From this, Qualcomm was aware of the concern of JVT
10 participant Philips that the H.264 standard would practice patents that had not yet been
11 disclosed to the JVT and offered for licensing under royalty-free or reasonable and non-
12 discriminatory terms.

13 Furthermore, Philips closed its letter by stating, “In the interests of transparency
14 Philips is copying this letter to members of the JVT Group, many of whom are licensees
15 under the MPEG2 Video patents, in order to demonstrate Philips [sic] continued
16 commitment to transparency and non-discrimination in the licensing of IPR on standards.”

17 (Id., Tab 74 at 436.) Therefore, while it is not apparent when Qualcomm received the copy
18 of Philips’ letter, since Philips copied the letter to all JVT members, the Court concludes
19 that Qualcomm probably received a copy not long after it was sent on June 21, 2002.

20 The Court already found by clear and convincing evidence in its March 21 Order
21 that JVT participants treated the JVT IPR policy as imposing a duty of disclosure for
22 patents that reasonably might be necessary to practice the H.264 standard. Now,
23 considering the new evidence produced late by Qualcomm post-trial, the Court **FINDS** by
24 additional clear and convincing evidence that Qualcomm was aware of this treatment as
25 early as August 2002.

26 **4. The Court FINDS by clear and convincing evidence that**
27 **Qualcomm had knowledge by early March 2002 that its Adaptive**
28 **Block Size Transform (“ABT”) related patents, including the ‘104**
and ‘767 patents, reasonably might be necessary to practice the

H.264 standard

1
2 In the Court's March 21 Order finding in favor of Broadcom on its affirmative
3 defense of waiver, the Court found by clear and convincing evidence that Qualcomm had
4 knowledge that the '104 and '767 patents might reasonably be necessary to practice to
5 H.264 standard as early as 2002 and July 2005 respectively. (Doc. No. 528 at 27.) With
6 Qualcomm's post-trial production of additional documents, the Court now **FINDS** by
7 additional clear and convincing evidence that Qualcomm had knowledge as early as March
8 2002 that its ABT related patents, including the '104 and '767 patents, reasonably might be
9 necessary to practice the H.264 standard.

10 Qualcomm's own witness Chong Lee, an inventor of both the '104 and '767 patents,
11 testified at trial that the '104 and '767 patents related to ABT technology. Mr. Lee testified
12 that his May 1992 paper "Intraframe Compression of HDTV Images Based on Adaptive
13 Block Size Discrete Cosine Transform" described the '104 patent invention. (Trial Tr., 94,
14 Jan. 10, 2007.) He stated that the paper "discusses the technology involved in both 104 and
15 -- 104 that included ABS DCT [Adaptive Block Size Discrete Cosine Transform] and DQT
16 [Differential Quadtree Transform]" and reiterated that the '104 patent describes "intraframe
17 compression." (Id. at 70, 94.)

18 In contrast, Mr. Lee specified that the '767 patent describes "interframe
19 compression." (Trial Tr., 70, Jan. 10, 2007.) Mr. Lee testified:

20 I approached the problem [addressed in the '767 patent] by using multiple
21 block sizes in an adaptive fashion to solve the problem of obtaining both
quality and efficiency of the [video interframe] compression.

22 (Id. at 107 - 08.) When asked whether the '767 patent approach was similar to ABS DCT,
23 Mr. Lee responded:

24 Yes. Exactly. Just like we were describing ABS DCT as adaptive block size
25 technique that involves transforms on different block sizes, **this technique**
26 **involves adaptive block sizes** by applying what's called motion
compensation, looking for similarities in large blocks versus small blocks.

27 (Id.) (emphasis added.)

1 Qualcomm recognized as early as March 2002 that its ABT related patents might be
2 reasonably necessary to practice the H.264 standard. A report entitled “Report of activities
3 for the last six months” and dated March 6, 2002, that was produced from Qualcomm’s
4 records stated:

5 Since our group is actively involved in the ITU, MPEG, and SMPTE
6 standards meetings, we are looking into proposing some of the features of
7 **our ABSDCT compression algorithm** to one of these standard bodies. I had
8 the task of compiling the details of MPEG, JVT (Joint Video Team) and
9 ABSDCT compression features. I reviewed the JVT draft and prepared a
spreadsheet detailing the aspects of these algorithms. We haven’t had a
chance to discuss [sic] this yet. The purpose behind this is for us to decide
**whether our ABSDCT Intra and interframe algorithms will fit in the
JVT scenario.**

10 (Doc. No. 543-2, Ex.A, Tab 11 at 96.) As stated above, the ‘104 patent deals with
11 intraframe video compression, while the ‘767 patent deals with interframe video
12 compression. From this report, Qualcomm demonstrates its awareness of the connection
13 between these patents and the H.264 standard being developed by the JVT.

14 On March 26, 2002, Qualcomm engineer Silberger sent an email to three Qualcomm
15 employees, including Ms. Irvine and Jay Yun, with the subject heading “JVT ABS
16 submission,” which stated:

17 For several days now, Jay and myself have been looking at ways to
18 incorporate **our ABS** into H.26L [another name for H.264] for submission in
the JVT May Meeting.

19 (Doc. No. 543-2, Ex. A, Tab 17 at 122) (emphasis added.) Clearly, Mr. Silberger is here
20 acknowledging that Qualcomm’s adaptive block size technology is so related to the work
21 being done in the JVT that it should be offered for incorporation into the developing H.264
22 standard.

23 The next day on March 27, 2002, Mr. Yun responded to Mr. Silberger’s email,
24 stating:

25 After discussing JVT ideas with Amnon, I remembered that there were some
26 recent proposals that have to do with **variable block sizes**. I re-read those
27 proposals, Jordan’s report and **our patents** and come up with the following
observations.

1 (Id., Tab 20 at 131) (emphasis added.) Addressing JVT proposals already made by others
2 to add an 8x8 transform, a 16x16 transform, and a 2x2 transform, Mr. Yun wrote:

3 1. [. . .] They are all integer transforms that mimic DCT. With these, perhaps
4 we can recommend **our variable block size scheme** that is different than the
5 proposal which only uses fixed-size sub-blocks for the entire 16x16 block
(i.e., you can only have all 8x8s, all 4x4s, all 8x4s or all 4x8s, etc.)? . . .

6 But Jordans' report says that this adaptive block-size ideas will not be
7 included in the baseline but in some high quality applications, so we may be
8 able to prove that there is a significant gain in quality by using out [sic]
9 scheme.

8 (Id.) (emphasis added.) Mr. Yun continued:

9 2. **Our original patents mention DCT almost exclusively** and says that it is
10 for "pixel data." Should we "extend" our patents to include all transforms
11 and all data types (like residuals)?

12 3. We should go to all JVT meetings at least for the time being to be on top
13 of their work on ABT, which Jordan says is brand new.

14 4. Similar to ideas in 1, we can use **our interframe ABS patent** and then
15 either recommend BSA [sic ABS] for motion block size
16 assignment/representation and/or attach or block JVT's scheme for using
17 variable block size for motion estimation (they use fixed size sub-blocks,
18 though).

15 (Id., Tab 20 at 131 - 32) (emphases added.) Both the '104 and '767 patents mention DCTs
16 multiple times: in the claim language and repeatedly throughout every section of the '104
17 patent, and in the description of preferred embodiments in the '767 patent. ('104 patent;
18 '767 patent.) Furthermore, as Mr. Lee explained at trial, the '767 patent describes
19 interframe compression using adaptive block sizes.

20 Then, in July 2002, Ms. Raveendran sent an email to Qualcomm JVT consultant
21 Isailovic, in which she wrote:

22 **About patent reviews for JVT and studying ABT with respect to our**
23 **patent**, it was decided that we would like a summary of various aspects of
24 ABT in JVT. There are a lot of details and if you can help narrow down the
25 focus, that would be a good start.

25 (Id., Tab 86 at 504) (emphasis added.)

26 A few months later in November 2002, Qualcomm engineer Yun wrote an email
27 with the subject heading "JVT slides," stating that "monitoring ABT is of importance since
28

1 there may be **patent infringement issues related to ABSDCT.**” (Id., Tab 102 at 600)
2 (emphasis added.) Qualcomm engineer Silberger responded to Mr. Yun’s email on the
3 same day, carbon copying Ms. Raveendran and writing, “One thing, didn’t we kind of
4 conclude that they are not infringing our ABSDCT?” (Id., Tab 102 at 599.) This email
5 exchange makes it clear that, prior to November 2002, Qualcomm had already given
6 consideration to whether the H.264 standard in development would infringe Qualcomm’s
7 ABS DCT patents, which include the ‘104 and ‘767 patents. This is further confirmed by
8 the December 2002 document entitled “JVT 12/9-14/02 meeting goals, prioritized list,” in
9 which the item “ABT” is followed by the question, “Is there a **potential IPR issue with**
10 **ABSDCT?**” (Id., Tab 109 at 635) (emphasis added.)

11 Then, in April 2003, Qualcomm employee Tom Kilpatrick sent an email to Viji
12 Raveendran and another Qualcomm employee addressing a new “bi-weekly working
13 engineering meeting.” (Id., Tab 118 at 673.) Mr. Kilpatrick wrote, “One of the things to
14 be addressed in Viji’s meetings are progress on **Digital Cinema patents** vs JVT standard.”
15 (Id.) (emphasis added.) Qualcomm’s outside expert Dr. Iain Richardson testified at trial
16 that Qualcomm designed a product implementing an audio compression system, the QDEC-
17 1000, based on the ‘104 patent. (Trial Tr., 126 - 27, Jan. 11, 2007.) Qualcomm employee
18 Irvine then confirmed through deposition testimony at trial that the QDEC-1000 was sold
19 to “Technical or Digital Cinema.” (Trial Tr., 84 - 85, Jan. 18, 2007.) Therefore,
20 Qualcomm knew of a link between the ‘104 patent and the H.264 standard and set up bi-
21 weekly meetings to “address” the issue in April 2003.

22 This newly discovered evidence augments the already convincing evidence
23 explicitly naming the ‘104 and ‘767 patents that the Court discussed in its March 21 Order,
24 indicating Qualcomm’s knowledge of a link between those patents and the H.264 standard.
25 Therefore, the Court **FINDS** by additional clear and convincing evidence that Qualcomm
26 had knowledge that the ‘104 and ‘767 patents reasonably might be necessary to practice the
27 H.264 standard as early as March 2002, well before the JVT released the H.264 standard in
28

1 May 2003.

2 At no time before the H.264 standard was initially published as adopted did
3 Qualcomm reveal to the JVT or its parent bodies Qualcomm's IPR, specifically the '104
4 and '767 patents.

5

6 **5. The Court FINDS by clear and convincing evidence that**
7 **Qualcomm intentionally organized a plan of action to shield the**
8 **'104 and '767 patents from consideration by the JVT with the**
9 **anticipation that (1) the resulting H.264 standard would infringe**
10 **those patents and (2) Qualcomm would then have the opportunity**
11 **to become an indispensable licensor to anyone in the world seeking**
12 **to produce H.264-compliant products**

13 The Court has already found above and in its March 21 Order that Qualcomm
14 waived its rights to enforce the '104 and '767 patents against Broadcom by its silence when
15 it had a duty to speak before the JVT. However, faced with the additional evidence
16 produced post-trial by Qualcomm, the Court concludes that the conduct of Qualcomm's
17 employees before trial, and its employees and hired witnesses during pre-trial, trial, and
18 post-trial outlines misconduct even more extensive than the Court previously found in its
19 March 21 Order.

20 Merely the reiteration of the chronology of events above and below tells the story of
21 the gravity of the conduct. The facts speak for themselves. The totality of the
22 circumstances leads the Court to conclude by clear and convincing evidence that
23 Qualcomm intentionally organized a plan of action to shield the '104 and '767 patents from
24 consideration by the JVT with the anticipation that (1) the resulting H.264 standard would
25 infringe those patents and (2) Qualcomm would then have an opportunity to be an
26 indispensable licensor to anyone in the world seeking to produce an H.264-compliant
27 product.

28

1 The track of this conduct following the adoption of the H.264 standard exposes
2 aggravated litigation abuse. This abuse commenced with Qualcomm's abrupt
3 commencement of suit, then continued (1) in discovery through Qualcomm's constant
4 stonewalling, concealment, and repeated misrepresentations concerning existing corporate
5 documentary evidence that would have revealed the fullness of the corporate plan; and (2)
6 in trial through Qualcomm's presentation of numerous witnesses who steadfastly testified
7 falsely denying even awareness, let alone participation in the JVT project and through the
8 actions of Qualcomm's lead and co-counsel up to the time Qualcomm substituted new lead
9 counsel, who adamantly denied the obvious and then, when the truth was discovered and
10 exposed by the document production, sequentially contended denial of relevance,
11 justification, mistake, and finally non-awareness.

12 **a. Misconduct of Qualcomm, its employees, and its witnesses**

13 The Court **FINDS** by clear and convincing evidence that Qualcomm, its employees,
14 and its witnesses actively organized and/or participated in a plan to profit heavily by (1)
15 wrongfully concealing the patents-in-suit while participating in the JVT and then (2)
16 actively hiding this concealment from the Court, the jury, and opposing counsel during the
17 present litigation.

18 **(1) Misconduct before the JVT**

19 As established above, there is clear and convincing evidence that Qualcomm was
20 aware of its duty to disclose the '104 and '767 patents to the JVT as early as 2002, well
21 before the H.264 standard was published in May 2003. However, it was not until April 25,
22 2006, six months after the commencement of this lawsuit, that Qualcomm filed an IPR
23 disclosure form with the ITU-T and ISO/IEC regarding the H.264 standard, declaring that
24 Qualcomm "holds granted patents and/or pending applications, the use of which would be
25 required to implement" the H.264 standard. (Pl's Trial Ex. 36 at 3 - 4.) Even this
26 disclosure did not identify any specific patent, let alone the '104 and '767 patents.

27 The Court **FINDS** by clear and convincing evidence that Qualcomm and its
28

1 employees orchestrated a plan to ignore Qualcomm's duty to disclose these patents to the
2 JVT, in order to become an indispensable licensor of the H.264 standard. Qualcomm
3 employee Yun sent an email in March 2002 to Qualcomm colleagues Silberger, Ratzel, and
4 Irvine, discussing the transform proposals before the JVT. (Doc. No. 543-2, Ex. A, Tab
5 20.) In it, Mr. Yun suggested "extending" Qualcomm's patents in order to cover the
6 standard being developed by the JVT:

7 Our original patents mention DCT [discrete cosine transform] almost
8 exclusively and says that it is for "pixel data". Should we "extend" our
9 patents to include all transforms and all data types (like residuals)?

10 (Doc. No. 543-2, Ex. A, Tab 20 at 131.) He then advocated monitoring the JVT and its
11 work in relation to Qualcomm's patents:

12 We should go to all JVT meeting at least for the time being to be on top of
13 their work on ABT [adaptive block-size transform], which Jordan [Isailovic]
14 says is brand new.

15 (Id.)

16 One month later in April 2002, Qualcomm engineer Silberger sent an email to
17 Qualcomm colleagues Determan, Irvine, Raveendran, Yun, and Ratzel. (Doc. No. 543-2,
18 Tab 38.) In it, he advocated "monitoring" the JVT "from a distance":

19 The JVT effort is mostly done for the physical layer, and going towards a
20 committed draft in May. There is no indication that they are even looking at
21 DC [Digital Cinema] applications. New technical suggestions are dealing
22 mostly with better efficiency (reduced complexity) and file formats. We
23 should monitor this from a distance.

24 (Id., Tab 38 at 273.) Later, under the heading "Recommendations," Mr. Silberger advised
25 increasing Qualcomm's monitoring of the JVT and refraining from making any
26 submissions, which would include any potential patent disclosures, to JVT parent body
27 MPEG:

28 We should be monitoring MPEG meetings, especially regarding DC testings,
and also sample the JVT and JPEG activities. We may pull in some other
groups within Qualcomm to participate, since both H.26L [working name for
what later became the H.264 standard] and JPEG2000 may both be promising
for low data [sic] rates. At this point, I don't see the need for submitting
anything to MPEG.

1 (Id., Tab 38 at 274.) Mr. Silberger then explicitly recommended “consider[ing] efficient
2 ways for lobbying our technology in the appropriate forums.” (Id.)

3 Later, in July 2002, Qualcomm engineer Raveendran sent an email to Qualcomm
4 consultant Isailovic stating, “About patent reviews for JVT and studying ABT with respect
5 to our patent, it was decided that we would like a summary of various aspects of ABT in
6 JVT.” (Id., Tab 86 at 504.) From Ms. Raveendran’s use of the phrase “it was decided,” the
7 Court concludes that Qualcomm held meetings to decide strategy as to how to monitor the
8 JVT with respect to Qualcomm’s patents. Ms. Raveendran then conceded to Mr. Isailovic,
9 “There are a lot of details and if you can help narrow down the focus, that would be a good
10 start.” (Id.)

11 This monitoring and reporting on the activities of the JVT with respect to
12 Qualcomm’s patents without disclosure of these patents continued through the release of
13 the H.264 standard in May 2003 and Qualcomm’s filing of this patent infringement suit in
14 October 2005 against Broadcom as to the ‘104 and ‘767 patents. (Doc. No. 543-2, Ex. A.)
15 Qualcomm filed this suit (1) based on the theory that the patents-in-suit cover the H.264
16 standard and therefore Broadcom’s H.264-compliant products and (2) long before any
17 disclosure of these two patents to the JVT or its parent organizations and without any offer
18 to license its patents to Broadcom or to JVT members. In combination with the above
19 evidence presented to the Court as to Qualcomm’s participation in the JVT and
20 Qualcomm’s knowledge that the ‘104 and ‘767 patents reasonably might be necessary to
21 practice the H.264 standard, the Court **FINDS** by clear and convincing evidence that
22 Qualcomm and its employees organized and attempted to execute a plan to actively conceal
23 its patents from the JVT in order to later become an indispensable licensor to those
24 practicing the H.264 standard. This plan, of course, deprived the JVT of the opportunity to
25 attempt to design around the ‘104 and ‘767 patents in developing the H.264 standard.

26 **(2) Misconduct during the present litigation**

27 The Court’s finding as to Qualcomm’s wrongful conduct is further supported by
28

1 evidence of widespread and undeniable misconduct of Qualcomm, its employees, and its
2 witnesses throughout the present litigation, including during discovery, pre-trial motions-
3 practice, trial, and post-trial proceedings.

4 (a) **Christine Irvine**

5 For example, staff engineer Christine Irvine, Qualcomm's original Federal Rule of
6 Civil Procedure 30(b)(6) witness testified at trial through her July 6, 2006, deposition that
7 Qualcomm did not attend any JVT meetings:

8 Q Are you the person at Qualcomm most knowledgeable about
9 attendance or participation by any Qualcomm principal, employee or
representative at any H.264 standards committee meetings?

10 A I believe I am.

11 Q Are you the person at Qualcomm most knowledgeable about
12 Qualcomm's knowledge regarding the development of the H.264
standard?

13 A I believe I am.

14 Q And are you the person at Qualcomm most knowledgeable about any
15 actions taken by Qualcomm or any of its principals, employees or
16 representatives as a result of Qualcomm's knowledge regarding the
development of the standard?

17 A I believe I am.

18 Q Is Qualcomm a member of the JVT?

19 A No, Qualcomm is not.

20 Q Has Qualcomm ever attended any meetings of the JVT?

21 A Qualcomm is not aware of any attendance to any JVT meetings.

22 Q Has Qualcomm ever hosted any meeting of the JVT?

23 A Qualcomm's not aware of hosting a JVT meeting.

24 Q Okay. Has Qualcomm made any submissions to the JVT?

25 A No, Qualcomm has not made any submissions to the JVT that
Qualcomm is aware of.

26 Q When did Qualcomm first become aware of the development of the
H.264 standard?

27 A Approximately 2001 in trade journals.

28 (Trial Tr., 79 - 81, Jan. 18, 2007.)

29 The falsity of Ms. Irvine's testimony is now revealed as blatant. As detailed above
30 at length, Qualcomm produced over one hundred emails post-trial related to Qualcomm's
31 participation in the JVT and attendance of JVT meetings, the vast majority of which were
32 received or sent by Ms. Irvine. (Doc. No. 543-2, Ex. A.) For example, in February 2002,
33 Ms. Irvine received by email Qualcomm consultant Isailovic's report on the
34 January/February 2002 JVT meeting in Geneva, which Mr. Isailovic also sent to

1 Qualcomm employees Ratzel and Silberger. (Doc. No. 543-2, Ex. A, Tab 4 at 74.) Two
2 days later, Ms. Irvine forwarded Mr. Isailovic’s report to six Qualcomm employees,
3 including Ms. Raveendran, Mr. Determan, Mr. Silberger, and Mr. Yun. (Id., Tab 5.) In
4 May 2002, Ms. Irvine received a three-page report on the May 2002 JVT meeting in
5 Fairfax from Qualcomm colleague Yun, which was also sent to other Qualcomm
6 employees including Amnon Silberger, Mr. Ratzel, and Ms. Raveendran. (Id., Tab 57 at
7 361 - 63.) In that email, Mr. Yun explicitly stated, “I’ve attended some JVT meetings and
8 saw some demo (so did Amnon).” (Id., Tab 57 at 361.)

9 **(b) James Determan**

10 Similar to Ms. Irvine, Qualcomm employee James Determan gave deposition
11 testimony that is belied by the documents Qualcomm produced post-trial. In his August
12 2006 deposition, Mr. Determan testified that he did not know if Qualcomm was a member
13 of the JVT and that he did not believe he was personally a member of the JVT:

14 Q Do you know if Qualcomm is a member of the JVT?

15 MR. LEUNG: Objection. Calls for speculation.

16 THE WITNESS: I do not know.

17 BY MS. HUNT:

18 Q Are you personally a member of the JVT?

19 A I do not believe so.

20 (Doc. No. 543-2, Ex. S at 27.)

21 However, in conflict with this testimony, Mr. Determan received an email in January
22 2004 from Qualcomm colleague Laura Chiu with the subject title “FW: JVT Membership
23 Renewal.” (Doc. No. 543-2, Ex. A, Tab 128 at 727.) In that email, which was also sent to
24 five other Qualcomm employees including Viji Raveendran, Amnon Silberger, Rick Kane,
25 and Seyfullah Oguz, Ms. Chiu wrote:

26 Please let me know if you are still interested in being a **JVT member**.

27 Rick, would it be ok to make Viji the principal? I will be processing payment
28 for MediaFLO members: Viji, Amnon and Seyfullah.

(Id.) (emphasis added.) Attached to the end of Ms. Chiu’s email was a forwarded email
with the same subject heading. In that forwarded email thread, Ms. Chiu first wrote to

1 Parthenia Purcell, Associate Manager of Membership Services for the Information
2 Technology Industry Council (“ITIC”):

3 When you have the chance, please send me the invoices for **JVT**
4 **membership** renewal for Viji Raveendran [sic] (Principal), Amnon
Silberger (Alternate), and an application for Seyfullah Oguz (new member).

5 (Id., Tab 128 at 730) (emphasis added.) Ms. Purcell forwarded Ms. Chiu’s request to add
6 new member Qualcomm employee Oguz to Lynn Barra, Associate Director of Information
7 Technology Industry Standards Operations, who replied to Ms. Chiu as follows:

8 Prior to making any changes to the **Qualcomm membership**, we would like
9 to verify the information we have on file with you. Below is the current
member information we have in our database.

10 Rick Kane - principal (\$800)

11 Amnon Silberger - alternate (free, included with principal membership)

12 Hari Garudadri - additional alternate (\$800)

13 **Jim Determan** - additional alternate (\$800)

14 Viji Raveendran - additional alternate (\$800)

15 (Id., Tab 128 at 728) (emphases added.)

16 Moreover, Mr. Determan received many of the emails discussed above, which
17 included JVT meeting reports from Qualcomm employees and consultant Isailovic as well
18 as discussion of Qualcomm monitoring of the JVT. Therefore, the Court can only conclude
19 that, at the time of Mr. Determan’s August 2006 deposition, he was fully aware that (1)
20 Qualcomm was heavily involved with the JVT since as early as January 2002 and (2) as
21 recently as 2004, Qualcomm was still a paying member of the JVT and so was Mr.
22 Determan as a Qualcomm representative.

23 Mr. Determan also testified in his August 2006 deposition that he did not recall ever
24 attending a JVT meeting nor was he aware of any Qualcomm employee attending any:

25 Q Have you ever attended any meeting of the JVT?

26 A Not that I recall.

27 Q Do you know of any Qualcomm employees that have attended JVT
meetings?

28 MR. LEUNG: Objection. Calls for speculation.

1 THE WITNESS: Not that I'm aware.

2 (Doc. No. 543-2, Ex. S at 27.) However, Qualcomm's post-trial production of documents
3 reveals that, not only was Mr. Determan aware that Qualcomm employees had attended
4 JVT meetings, but Mr. Determan probably attended some himself.

5 Qualcomm employee Silberger wrote in an April 2002 email:

6 We have been attending these standard body meetings for a while now.
7 There are the MPEG/JVT/JPEG meetings and the SMPTE meetings. To ease
8 the load, all the system engineers in our group rotate in attending these
(Chris, Jay, Viji, Jim Determan and myself.)

9 (Doc. No. 543-2, Ex. A, Tab 44 at 306.) Mr. Determan also received five emails from
10 Qualcomm colleagues Yun and Silberger with daily reports from their attendance of the
11 May 2002 JVT meeting in Fairfax, Virginia. (Id., Tabs 56 - 60.)

12 Mr. Determan then testified at his August 2006 deposition that he did not know
13 when any JVT meetings took place nor did he recall ever hearing reports of any JVT
14 meetings:

15 Q Do you know when any of the JVT meetings took place?

16 A No.

17 Q Have you ever heard any reports, whether via email or written report
18 or any discussion, of what occurred at any JVT meeting?

19 A Not that I recall.

20 (Doc. No. 543-2, Ex. S at 29.) However, in contrast to this testimony, as stated above, Mr.
21 Determan received multiple reports of the May 2002 JVT meeting in Fairfax. (Doc. No.
22 543-2, Ex. A, Tabs 56 - 60.) He also "rotated" attending MPEG/JVT/JPEG and SMPTE
23 standard body meetings with the other engineers in his group, Mr. Silberger, Mr. Yun, Ms.
24 Raveendran, and Ms. Irvine. (Id., Tab 44 at 206.) Furthermore, in February 2002, he
25 received Qualcomm consultant Isailovic's report of the January 2002 JVT meeting in
26 Geneva forwarded to him by Qualcomm colleague Irvine. (Id., Tab 5.)

27 (c) **Viji Raveendran**

28 In addition to her colleagues Ms. Irvine and Mr. Determan, Qualcomm trial witness

1 and senior staff engineering manager Viji Raveendran also gave testimony at deposition
2 and trial that was later blatantly contradicted by Qualcomm's post-trial document
3 production. Ms. Raveendran testified in her July 2006 deposition that she did not even
4 learn of the JVT until 2003 through journals and publications:

5 Q. [] Referring only to the Joint Video Team that developed the H.264
6 standard, when did you first learn of the Joint Video Team that
7 developed the H.264 standard?

8 A. Somewhere in the 2003 time frame.

9 Q. How did you learn of it?

10 A. Through literature.

11 Q. What literature?

12 A. Basically journals and video processing related --

13 THE REPORTER: Related what?

14 THE WITNESS: Journals and publications, basically publications.

15 (Doc. No. 543-2, Ex. P at 36 - 37.)

16 However, the evidence produced by Qualcomm post-trial reveals that Ms.
17 Raveendran knew of the JVT as early as February 2002 through reports on JVT meetings
18 from Qualcomm consultant Isailovic, not through "journals and publications" in "the 2003
19 time frame" as she testified. Qualcomm produced post-trial almost one hundred emails and
20 JVT meeting reports Ms. Raveendran either received or sent in 2002 addressing JVT's
21 work and its relation to Qualcomm. (*Id.*, Tabs 5 - 111.) For example, in February 2002,
22 Ms. Raveendran received Qualcomm consultant Isailovic's report on the January 2002 JVT
23 Meeting in Geneva in an email forwarded by Qualcomm colleague Irvine. (Doc. No. 543-
24 2, Tab 5.) Furthermore, Ms. Raveendran sent many emails herself to other Qualcomm
25 employees regarding the JVT, including her February 2002 email to Mr. Yun and Ms.
26 Irvine, in which she says, "Chris is going to the JVT mtg. and will be driving tomorrow.
27 We will meet at Starbucks off Jefferson Rd. exit on I-78 (off of I-5) at 11:30 a.m." (*Id.*,
28 Tab 8 at 88.)

Later in her deposition, Ms. Raveendran testified that she did not know of nor did
she receive a report of the JVT meeting (1) in January 2002 in Geneva, Switzerland; (2) in
May 2002 in Fairfax, Virginia; (3) in August 2002 in Klagenfurt, Austria; (4) in October

1 2002 in Geneva, Switzerland; (5) in December 2002 in Awaji Island, Japan; and (6) in
2 September 2003 in San Diego, California. (Id. at 41 - 44.) In direct contradiction to her
3 testimony, Qualcomm’s post-trial production of documents reveal that Ms. Raveendran did
4 in fact receive (1) a report of the January 2002 JVT meeting in Geneva (Doc. No. 543-2,
5 Tab 5); (2) many emails discussing and reporting on the May 2002 JVT meeting in Fairfax,
6 including at least one sent by Ms. Raveendran herself (Id., Tabs 18, 22, 25, 32, 35, 36, 41,
7 56 - 61); (3) emails discussing the August 2002 JVT meeting in Klagenfurt, including ones
8 forwarding documents registered for the Klagenfurt meeting “[p]er your request, Viji” and
9 forwarding lists of Klagenfurt meeting registrants under “Viji, [t]his is for you” (Id., Tabs
10 54, 69, 80 at 468, 82, 84 at 492); (4) emails discussing the October 2002 JVT meeting in
11 Geneva, including one from Ms. Raveendran herself (Tabs 54, 97); (5) an email mentioning
12 the December 2002 JVT meeting on Awaji Island (Doc. No. 100); and (6) an email
13 mentioning the September 2003 JVT meeting in San Diego (Doc. No. 123).

14 Later in her July 2006 deposition, Ms. Raveendran testified that she did not know of
15 any JVT IPR policy:

16 Q. Does the JVT have a policy regulating intellectual property rights?
17 A. I don’t know of that.

18 (Doc. No. 543-2, Ex. P at 76.) However, again, documents produced by Qualcomm post-
19 trial tell a different story. Ms. Raveendran forwarded an email to two Qualcomm
20 colleagues in October 2002 with the subject heading “Fwd: [jvt-ipr] Confirmation of JVT
21 IPR meeting in Geneva.” (Doc. No. 543-2, Ex. A, Tab 97 at 567.) In that email, she wrote,
22 “FYI. Some information on licensing issues and IPR in JVT.” (Id.) The forwarded email
23 included a suggested meeting agenda:

- 24 1) short summary of the IPR status in JVT
- 25 2) potential licensing models, examples and wishes: MPEG-4, other
- 26 3) (ongoing) determination of essential patent holders
- 27 4) expected process once essential patent holders are identified
- 28 5) involvement of licensees and the role of this “JVT-IPR group”

(Id., Tab 97 at 568.) Therefore, Ms. Raveendran was aware that the JVT wanted to identify

1 “essential patent holders” and was developing licensing models to regulate IPR.

2 Then in November 2002, Ms. Raveendran wrote an email to three Qualcomm
3 employees, including Mr. Yun and Mr. Silberger, in which she wrote, “Attached is the
4 Patent list Statement on MPEG. Part 10 covers JVT (under AVC, that’s how JVT is
5 referred to in MPEG world).” (Id., Tab 101 at 590.) Jay Yun then sent out an email in
6 response to a question as to the completeness of Ms. Raveendran’s list:

7 Initially JVT set out to come up with a royalty-free baseline profile. Many
8 submitted their technologies knowing that this is going to be the case, or
9 some even withheld their submissions into the Baseline profile because they
10 didn’t want to submit as royalty-free. And then over time it became evidence
11 that royalty free baseline is not going to be possible. Some patents are carry
12 over from MPEG-2 and 4. So now, some want to re-define the baseline
13 profile and make sure all who didn’t submit technologies before b/c they
14 thought they couldn’t would be allowed to submit again. A big mess.

15 (Id., Tab 101 at 589.) Ms. Raveendran then clarified Mr. Yun’s response in her own email:

16 A quick note: yes, this is not a complete list as Jay clarified. Also, the
17 contributions that did not make it into JVT’s baseline profile (due to royalty
18 issues), are now incorporated into the “Common” profile.

19 (Id., Tab 101 at 588.) Therefore, in contradiction to her deposition testimony, Ms.
20 Raveendran was clearly aware of how the JVT was organizing its IPR into various profiles
21 and licensing schemes and did “know of” the JVT’s policy regarding its IPR.

22 Furthermore, Ms. Raveendran’s trial testimony is directly rebutted by Qualcomm’s
23 post-trial production of documents. She testified that Qualcomm did not get involved in the
24 JVT until “much later” after the JVT was formed in late 2001:

25 Q Was Qualcomm involved with JVT at that time [when the JVT was
26 formed in 2001]?

27 A No, we were not.

28 Q Did Qualcomm ever become involved with JVT?

A Much later, when -- I mean, my -- my participation has been -- I don't
know who else participated in Qualcomm recently, but -- is that much
later when the scalable video coding effort got merged into JVT -- the
scalable video coding was a different standard that MPEG was
working on, and when they -- when that work item got moved to JVT,
that's when we started participating.

(Trial Tr., 40 - 41, Jan. 24, 2007.) However, as demonstrated by Mr. Isailovic’s report on
the January 2002 JVT meeting in Geneva, which was forwarded to Ms. Raveendran in

1 February 2002, Qualcomm was involved in the JVT as early as January 2002, which Ms.
2 Raveendran was well aware of when she testified at trial. (Doc. No. 543-2, Tab 5.)

3 At trial, Ms. Raveendran also testified that her only personal involvement with the
4 JVT was attending one JVT meeting in July 2005 in Poland:

5 Q Did you have any personal involvement with JVT?

6 A I attended one of their meetings when they were working on the
7 scalable video coding effort. Scalable video coding is to enable
8 different quality levels and different display levels of recorded video,
9 depending on the display sizes, for example.
10 So that was a new technology that the group was working on, and my
11 interest was more in the sense of how robust that technology is to
12 errors. Because in a wireless scenario, there are errors that will cut up
13 the data, and how robust is that data. So that was my involvement.

14 (Trial Tr., 41, Jan. 24, 2007.) However, as is made abundantly clear by Qualcomm's post-
15 trial document production described above, that was far from the extent of Ms.
16 Raveendran's involvement with the JVT. The documentary email evidence shows that Ms.
17 Raveendran was in fact integrally involved with Qualcomm's intense monitoring of the
18 JVT since as early as February 2002: sending JVT reports, receiving JVT reports, and
19 acting as a liaison between Qualcomm and consultant Isailovic who attended JVT meetings
20 on Qualcomm's behalf.

21 **b. Misconduct of Qualcomm counsel**

22 **(1) Misconduct during discovery**

23 The Court **FINDS** by clear and convincing evidence that Qualcomm counsel
24 participated in an organized program of litigation misconduct and concealment throughout
25 discovery, trial, and post-trial before new counsel took over lead role in the case on April
26 27, 2007.

27 On October 14, 2005, Qualcomm counsel filed a Complaint on behalf of Qualcomm
28 alleging Broadcom's infringement of the '104 and '767 patents based on Broadcom's
manufacture, sale, and offers to sell H.264-compliant products, requesting preliminary and
permanent injunction and damages. (Doc. No. 1.) On January 23, 2006, Broadcom

1 submitted its First Set of Requests for the Production of Documents and Things (Nos. 1 -
2 88), in which it requested “[a]ll documents concerning Qualcomm membership,
3 participation, interaction, and/or involvement in setting any standard relating to the
4 processing of digital video signals that pertains in any way to any Qualcomm Patent.”

5 (Doc. No. 543-2, Ex. V at 17.) Qualcomm counsel submitted in Qualcomm’s Response to
6 Broadcom’s request on February 24, 2006, the following response:

7 QUALCOMM will produce responsive non-privileged documents that were
8 given to or received from standards-setting body responsible for the ISO/IEC
9 MPEG-4 Part 10 standard, and which concern any QUALCOMM
10 participation in setting the ISO/IEC MPEG-4 Part 10 standard, following the
11 entry of, and pursuant to the terms of, a mutually agreed-upon protective
12 order.

13 (Doc. No. 543-2, Ex. W at 44.) This response deflected the request as though it only
14 addressed the MPEG-4 Part 10 standard and completely concealed Qualcomm’s extensive
15 involvement with the JVT and the H.264 standard.

16 On January 23, 2006, Broadcom also submitted Request for Production No. 49
17 requesting “[a]ll documents given to or received from a standards setting body or group
18 that concern any standard relating to the processing of digital video signals that pertains in
19 any way to any Qualcomm Patent, including without limitation communications, proposals,
20 presentations, agreements, commitments, or contracts to or from such bodies.” (Doc. No.
21 543-2, Ex. E at 1.) Later on July 14, 2006, Broadcom submitted Request for Production
22 No. 93 requesting “[a]ll documents referring to or evidencing any participation by
23 Qualcomm in the proceedings of the JVT, the ISO, the IEC, and/or the ITU-T.” (Id.)
24 Despite these requests, Qualcomm counsel produced none of the over two hundred
25 thousand pages of emails and electronic documents concerning the JVT and the H.264
26 standard, which were clearly within the scope of the requests, and that were finally
27 produced four months post-trial.

28 On January 23, 2006, Broadcom submitted its First Set of Interrogatories Under Fed.
R. Civ. P. 33 (Nos. 1-16), in which it listed as Interrogatory No. 13:

1 Please identify and describe in detail Qualcomm’s membership, participation,
2 interaction, and/or involvement in setting any standard relating to the
3 processing of digital video signals that pertains in any way to any Qualcomm
4 patent [. . .] This interrogatory includes without limitation any MPEG
5 [Moving Pictures Working Group] video processing standard, and expressly
6 includes H.264.

7 (Doc. No. 565-2, Ex. C at 15.) Broadcom further asks in this same interrogatory for “the
8 nature, purpose, effect, and sum and substance of Qualcomm’s participation and/or
9 involvement,” “the identity of each Person who participated or was involved on behalf of
10 Qualcomm,” and the “relevance” and “identity” of any Qualcomm patent “related to such
11 standard.” (Id. at 15 - 16.)

12 The Court quotes the verbatim response submitted by Qualcomm counsel to
13 Interrogatory No. 13 in Qualcomm’s Fourth Supplemental Response to Broadcom’s First
14 Set of Interrogatories (Nos. 1-16), pages 33 - 35, dated September 5, 2006, because it
15 demonstrates vividly the stonewalling denial and diversions of requests for evidence
16 repeatedly directed to Qualcomm:

17 QUALCOMM refers to and incorporates by reference each of the
18 foregoing general objections as though each is set forth fully herein,
19 including privilege and work product.

20 QUALCOMM further objects to the definition of “identify” to the
21 extent it renders the interrogatories overly broad, unduly burdensome and/or
22 would require QUALCOMM to provide information that is not within its
23 possession, custody, and control and/or cannot be identified or located with a
24 reasonably diligent search.

25 QUALCOMM objects to the purported requirement that it respond “in
26 detail” as vague, ambiguous, unduly burdensome, overly broad, and requiring
27 information not within its possession, custody, or control. In particular, it is
28 unclear how much detail is requested, and QUALCOMM will respond only
to the extent information is explicitly requested.

QUALCOMM objects to the term “Qualcomm Patent” as vague and
ambiguous, and instead will refer to the “QUALCOMM Patents-in-Suit.”

QUALCOMM objects to the definition of “Person” to the extent that
its definition is circular with respect to “Entity” and “entities.” “Person” is
defined to include any “legal entity,” “government entity,” and “business
entity.” “Entity” is defined to include “natural persons.” QUALCOMM will
construe “Person” in accordance with its reasonable ordinary meaning.

QUALCOMM objects to the phrase “any standard relating to the

1 processing of digital video signals” as vague and ambiguous. QUALCOMM
2 further objects to the defined terms “standard” or “standards” as vague,
3 ambiguous, overbroad, unduly burdensome and not reasonably calculated to
4 lead to the discovery of admissible evidence; and to the defined terms
5 “MPEG video processing” as vague, ambiguous, overbroad, unduly
6 burdensome and not reasonably calculated to lead to the discovery of
7 admissible evidence. QUALCOMM will construe those terms as stated in the
8 general objections.

9 QUALCOMM objects to the term “relevance” as vague, overly broad,
10 and neither relevant to the subject matter of this litigation nor reasonably
11 calculated to lead to the discovery of admissible evidence.

12 QUALCOMM objects to the purported requirement that it respond as
13 to the time period(s) at issue as vague, ambiguous, overly broad, unduly
14 burdensome, and requiring information not within its possession, custody, or
15 control.

16 QUALCOMM objects to the phrase “nature, purpose, effect, and sum
17 and substance” as vague, ambiguous, overly broad, unduly burdensome, and
18 requiring information not within its possession, custody, or control.

19 QUALCOMM objects to the phrase “participation and/or
20 involvement” as vague, ambiguous, overly broad, and unduly burdensome.

21 QUALCOMM objects to the phrase “membership, participation,
22 interaction, and/or involvement” as vague, ambiguous, overly broad, and
23 unduly burdensome because the phrase “membership . . . in setting any
24 standard” is impossible to parse.

25 QUALCOMM objects to the purported requirement that it identify
26 “each” person, to the extent it calls for information that is not within
27 QUALCOMM’s possession, custody, and control and/or that cannot be
28 identified or located with a reasonably diligent search.

QUALCOMM objects to the purported requirement that it respond as
to “standards raised but never adopted” as vague and to the extent it calls for
information not within QUALCOMM’s possession, custody, and control
and/or that cannot be identified or located with a reasonably diligent search.

QUALCOMM objects to the purported requirement that it identify the
particular standard(s) that resulted from Qualcomm’s involvement, to extent it
calls for information that is not within QUALCOMM’s possession, custody,
and control and/or that cannot be identified or located with a reasonably
diligent search.

QUALCOMM objects to the phrase “relevance” in interrogatory 13(I)
as vague, ambiguous, overly broad, unduly burdensome, calling for
information that is not within QUALCOMM’s possession, custody, and
control and/or cannot be identified or located with a reasonably diligent
search, and neither relevant to any claim or defense at issue in this litigation
nor reasonably calculated to lead to the discovery of admissible evidence. In
particular, the basis for determining relevance is unclear, the interrogatory

1 potentially requires a response that is virtually unlimited in scope, and it is
2 unclear as to the entities from whose perspective relevance is to be
determined.

3 QUALCOMM objects to the term “related” as vague, ambiguous,
4 overly broad, and unduly burdensome, and neither relevant to any claim or
defense at issue in this litigation nor reasonably calculated to lead to the
5 discovery of admissible evidence. Subject to and without waiving the general
and specific objections set forth herein, QUALCOMM responds as follows.
6 Beyond passive monitoring, QUALCOMM participated in ISO/IEC
JTC1/SC29 WG11 of MPEG. The time period at issue includes 2001. The
7 nature of QUALCOMM’s participation includes the contribution of two
proposals with document numbers 7340 and 7341. The author of these
8 proposals was A. Chris Irvine.

9 QUALCOMM contributed four proposals to the JVT in 2006. One
each during the January and April meetings, and two during the July meeting.
10 The authors of these proposals were Yiliang Bao and Yan Ye. During the
April 2006 meeting of the JVT, QUALCOMM also contributed a verification
of an earlier proposal by LG.

11 QUALCOMM’s investigation concerning this interrogatory is ongoing
12 and QUALCOMM reserves the right to supplement its response to this
interrogatory as warranted by its investigation.

13 On March 10, 2006, Qualcomm counsel submitted its Initial Disclosure of Asserted
14 Claims and Accused Products Relating to the ‘767 and ‘104 Patents, in which it listed as
15 Accused Broadcom Products those products that “conform to, comply with, and/or support
16 H.264.” (Doc. 565-2, Ex. A at 1.) At that point, Qualcomm apparently was very much
17 aware of the relevance of the H.264 standard.

18 On May 23, 2006, Broadcom submitted its Notice of Rule 30(b)(6) Deposition to
19 Qualcomm, [Notice No. 1: Qualcomm’s Products, Processes, and Instrumentalities], in
20 which it notices topics for 30(b)(6) deposition, including:

21 The attendance or participation by any Qualcomm principal, employee, or
22 representative at any H.264 standards committee meetings, including, but not limited
to, the dates, locations and agendas of such meetings, notes taken at such meetings,
23 membership of any Qualcomm principal, employee, or representative in any H.264
standards committees, and any actions taken by Qualcomm or any of its principals,
24 employees, or representatives as a result of such meetings.

25 (Doc. No. 565-2, Ex. D at vii.) In July 2006, Qualcomm’s proffered Rule 30(b)(6) witness
26 Christine Irvine falsely testified at deposition as described above in Section III-B-5-a-(2)-
27 (a) that Qualcomm was not a member of the JVT; Qualcomm was not aware of any

1 attendance of JVT meetings; and that nobody at Qualcomm sought to become involved in
2 the development of the H.264 standard. (Doc. No. 543-2, Ex. Q at 30, 34, 40.)

3 On July 12, 2006, Broadcom filed an additional Rule 30(b)(6) notice specifically
4 addressing the JVT in its Notice of Rule 30(b)(6) Deposition to Qualcomm, [Notice No. 5:
5 H.264 Participation]. (Def's Binder, 06-25-07 Hr'g, Tab 6.) Qualcomm's subsequent Rule
6 30(b)(6) witness Scott Ludwin testified at his August 2006 deposition that he had never
7 heard any discussion nor seen documentation of Qualcomm membership in the JVT:

8
9 Q. I take it further you haven't seen any written documentation of
Qualcomm's membership in the JVT.

10 MR. LEUNG: Objection; lacks foundation.

11 THE WITNESS: I've never been at any discussions with respect to the
membership in JVT or seen any documents if they do
exist.

12 (Doc. No. 543-2, Ex. R at 26.) He also testified that he did not know whether any
13 Qualcomm employees were JVT members:

14 Q. [. . .] [D]o you know whether any Qualcomm employees are currently
members of the JVT?

15 MR. LEUNG: Objection; vague and ambiguous.

16 THE WITNESS: I don't know. Again I'm not familiar with the
membership structure of the JVT and your attendance in
those particular organizations.

17 (Def's Binder, 06-25-07 Hr'g, Tab 13 at 26 - 27.) He later testified in the same deposition
18 that December 2003 was Qualcomm's first participation in the JVT:

19
20 Q. [. . .] So did any Qualcomm employee prior to December, 2003
participate in any JVT activity?

21 A. I believe that December of 2003 was our first participation in any
22 formal JVT meeting. I believe Qualcomm sponsored an event, a JVT
event when that organization met in San Diego [in September 2003].
23 I'm not certain - I don't know if anyone from Qualcomm actually
went to that event. That is the only participation that I know of any
Qualcomm company employee in any JVT activity.

24 (Ex. 565-3, Ex. H at 51.)

25 On August 16, 2006, Qualcomm counsel submitted Qualcomm's Response to
26 Broadcom's Second Set of Requests for Production of Documents and Things (Nos. 89-
27 115). (Doc. No. 543-2, Ex. X.) Qualcomm there stated:

28

1 QUALCOMM will produce non-privileged relevant and responsive
2 documents describing QUALCOMM's participation in the JVT, if any, which
can be located after a reasonable search.

3 (Id. at 12.) As is clear to the Court now, Qualcomm failed to produce even one of the over
4 two hundred thousand pages of emails, memoranda, and electronic documents related to
5 Qualcomm's participation in the JVT, which were finally produced after trial. But
6 Qualcomm's assurance of performing a "reasonable search" represents that Qualcomm was
7 acting in good faith to produce discovery.

8 On September 5, 2006, Qualcomm counsel then submitted Qualcomm's First
9 Supplemental Response to Broadcom's Second Set of Interrogatories (Nos. 17-29), in
10 which Qualcomm represented that the first JVT meeting attended by a Qualcomm
11 employee was by Phoom Sagetong in December 2003. (Doc. No. 543-2, Ex. Y at 12.)
12 Qualcomm listed Mr. Sagetong as attending eight JVT meetings from December 2003 to
13 January 2006 and asserted that the only other Qualcomm employees to attend JVT
14 meetings were: (1) Yuriy Reznick, who attended the July 2005 and October 2005 meetings;
15 (2) Ms. Raveendran, who attended the July 2005 meeting; and (3) Yiliang Bao, who
16 attended three meetings from January 2006 to July 2006. (Id. at 12 - 13.) As shown in
17 great detail hereabove, these supplemental responses were calculatedly misleading and
18 totally false in the context of their denial of any attendance of a JVT meeting by any
19 Qualcomm representative prior to December 2003.

20 Qualcomm counsel's discovery responses demonstrate that they were able to locate
21 with alacrity company records from December 2003 forward and find four or more
22 Qualcomm employees participating in proceedings of the JVT. Yet inexplicably, they were
23 unable to find over 200,000 pages of relevant emails, memoranda, and other company
24 documents, hundreds of pages of which explicitly document massive participation in JVT
25 proceedings since at least January 2002. These examples of Qualcomm counsel's
26 indefensible discovery conduct belie counsel's later implied protestation of having been
27 "kept in the dark" by their client.

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(2) Misconduct during motions practice

The gross litigation misconduct by Qualcomm counsel continued through motions practice before the Court.

On September 1, 2006, Qualcomm counsel submitted a Declaration of Dr. Iain Richardson in support of Qualcomm’s Motion for Summary Adjudication of no waiver, in which Dr. Richardson declared under penalty of perjury in pertinent part:

I have been unable to find any documentary evidence of the involvement of Qualcomm personnel in the H.264/AVC [Advanced Video Coding] standardization process prior to September 2003, by which time the technical content of the baseline, main and extended profiles was considered to be frozen and the first issue of the H.264/AVC standard had been published.

(Doc. No. 543-2, Ex. T at 5) (footnote omitted.) Dr. Richardson continued:

The involvement of Qualcomm employees in JVT activities from September 2003 to December 2005 appears to be minimal, with no technical contribution documents submitted by any Qualcomm employee.

(Id. at 5.) Dr. Richardson then concluded:

Indeed, Qualcomm was not significantly involved in the JVT until 2006, and then its involvement has been limited to the SVC [Scalable Video Coding] standardization project, not the H.264/AVC standard. Therefore, it is my opinion that Qualcomm did not meaningfully participate in the development of the H.264/AVC standard, and Qualcomm did not violate any of JVT’s or ITU-T’s rules or expectations regarding the disclosure of intellectual property rights.

(Id. at 9.) Here, even Qualcomm’s scientific expert Dr. Iain Richardson, who was qualified as an expert in video compression technology and who testified at trial that Broadcom’s H.254-compliant products infringed the ‘104 and ‘767 patents, was used by Qualcomm counsel to step out of his field of expertise and sign a declaration vouching for the absence of any corporate records regarding Qualcomm’s participation in the JVT.

Qualcomm counsel then filed this Richardson declaration on November 6, 2006, as Exhibit 15 to the Declaration of Kyle S. Robertson in Support of Qualcomm Incorporated’s Motion for Summary Adjudication regarding Broadcom’s defenses of equitable estoppel, implied license, fraud, unclean hands, breach of contract, laches, and waiver. (Doc. No. 168.)

1 On November 6, 2006, Qualcomm counsel filed Qualcomm’s Motion for Summary
 2 Adjudication as to Broadcom’s defenses including waiver (Doc. No. 165), to be heard by
 3 the Court on December 5, 2006. In the Introduction of the opening brief, Qualcomm
 4 counsel argued as follows: “The facts are undisputed: QUALCOMM employees never
 5 participated, in any form, in the JVT until *after* the H.264 standard was already released.”
 6 (Doc. No. 543-2, Ex. Z at 1.) Qualcomm counsel continued, “There is no evidence that any
 7 QUALCOMM participant knew of the applicability of the patents-in-suit to the H.264
 8 standard prior to the initiation of this lawsuit.” (Id.)

9 Qualcomm counsel then argued emphatically in the body of Qualcomm’s opening
 10 brief for summary adjudication, as summarized in the chart below:

Section title of Qualcomm’s brief	Arguments made by Qualcomm counsel
13 JVT Practices and 14 Procedures and 15 QUALCOMM’s 16 Participation 17 18 19 20 21 22 23 24 25 26 27	The evidence is undisputed that QUALCOMM was not involved, in any manner, with the work of the JVT leading up to this release of the H.264 standard in May of 2003. There is no evidence that QUALCOMM attended any of the JVT meetings between December, 2001 and May, 2003. Until September of 2003, no QUALCOMM employee ever attended a meeting of the JVT. There is also no evidence that QUALCOMM employees engaged in any email correspondence or other means for working with the JVT to develop the standard. (Doc. No. 543-2, Ex. Z at 4) (citations omitted.) The first recorded instance of a named QUALCOMM employee attending a meeting of the JVT occurs with Phoom Sagetong in December, 2003 [. . .] Between 2003 and 2005, Mr. Sagetong was the only QUALCOMM employee to attend a meeting of the JVT. (<u>Id.</u>) (citations omitted.) QUALCOMM never submitted a JVT patent disclosure form related to the baseline H.264 profile because QUALCOMM never participated in the JVT meetings where that standard was created [. . .] In April 2006, QUALCOMM declared that it had patents it believed were “required to implement” the H.264 standard, and that it was prepared to license any such patents on a “worldwide, non-discriminatory basis and on reasonable terms and conditions.”

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	(Id. at 7) (citations omitted.)
<p>It Is Undisputed that QUALCOMM Did Not Make a Misleading Communication</p>	<p>There is no evidence that any QUALCOMM employee was a JVT participant prior to September, 2003, and therefore there is no reasonable basis for Broadcom to assert that QUALCOMM had a duty to disclose the patents-in-suit prior to this point in time. There is no evidence of any particular QUALCOMM employee attending a meeting of the JVT prior to Phoom Sagetong, in December, 2003.</p> <p>(Doc. No. 543-2, Ex. Z at 10) (citations omitted.)</p> <p>It is undisputed that none of the QUALCOMM employees attending JVT meetings knew of the potential applicability of the patents-in-suit to the H.264 standard [. . .] [N]one of them [Qualcomm employees] can be accused of making any misleading statements or engaging in any misleading omissions.</p> <p>(Id.) (citations omitted.)</p> <p>The relevant H.264 standard had already been in place and the technical content of the standard established when the attendees in question, QUALCOMM engineers, attended their first meeting of the JVT.</p> <p>(Id. at 10.)</p>
<p>Broadcom's Claim Of Fraud Is Insufficient As A Matter Of Law</p>	<p>[T]here is no evidence showing the requirements of scienter and intent to defraud, as none of the QUALCOMM employees attending JVT meetings knew of these patents.</p> <p>(Doc. No. 543-2, Ex. Z at 15.)</p>
<p>Broadcom's Claim Of Unclean Hands Is Insufficient As A Matter Of Law</p>	<p>QUALCOMM employees participating in the JVT acted in good faith at all times[.]</p> <p>(Doc. No. 543-2, Ex. Z at 16.)</p>

In conjunction with the Motion for Summary Adjudication, Qualcomm counsel also filed a supporting Statement of Undisputed Facts, in which it listed as undisputed fact:

- 10. Qualcomm was not involved with the work of the JVT leading up to the release of the H.264 standard in May of 2003.
- 11. Qualcomm had no influence or effect on the technical content of the H.264 standard prior to its publication in May 2003.

1 (Doc. No. 543-2, Ex. AA at 2) (citations omitted.)

2 Then, on November 27, 2006, Qualcomm counsel filed their reply brief in support of
3 Qualcomm’s Motion for Summary Adjudication, in which they addressed the appearance
4 of Qualcomm employee Raveendran’s email address in an email list for a JVT ad hoc
5 group:

6 It does not show that Raveendran ever received any JVT documents or JVT
7 information of any sort, let alone anything covering the relevant parts of the
8 H.264 standard. The document thus does not contradict Raveendran’s
9 testimony that she did not receive information related to JVT meetings, and
10 did not know of JVT meetings or have any involvement with the JVT prior to
11 her participation in the SVC project. The document also provides no
12 evidence regarding what emails were allegedly sent to the “avc_ce” email
13 list, whether Raveendran was actually on this list or received any emails, and
14 whether she viewed and understood any emails that actually support the
15 elements of the defenses Broadcom has to prove, including that
16 QUALCOMM understood at the time that either of the patents-in-suit may
17 relate to the H.264 standard. In short, this document, even if admissible
18 (which it is not), fails to support *any* reasonable inference for Broadcom and
19 does not contradict Broadcom’s own expert when he agreed that
20 “QUALCOMM had not influence or effect on the technical content of the
21 H.264 standard prior to its publication in May 2003.”

22 (Doc. No. 543-2, Ex. CC at 6 - 7) (footnote and citations omitted.) Later, in a section
23 entitled “It Is Undisputed That No QUALCOMM Employee Knew Of The Applicability of
24 The Patents-In-Suit To The H.264 Standard Prior To This Lawsuit,” Qualcomm counsel
25 argued:

26 All Raveendran stated [in her deposition] was “I have seen the front page [of
27 the ‘104 patent], I haven’t seen the entire document.” This testimony does
28 not show that Raveendran was familiar with the technical details of the H.264
standard or with the relevance of the ‘104 Patent to the H.264 standard. It
falls far short of establishing that Raveendran “knew of the applicability of
the patents-in-suit to the H.264 standard,” only showing that Raveendran
never read the ‘104 Patent.

(Doc. No. 543-2, Ex. CC at 9) (footnote and citation omitted.)

The lynchpin of Qualcomm’s adamant and determined motions and arguments for
summary adjudication was the claim that Broadcom had no evidence of JVT participation.
Not surprising. Every attempt to obtain evidence, which as it came later to be revealed was
voluminous and dispositive, had been repelled by Qualcomm by its steadfast denial of the

1 existence of any evidence and the false denials of all factual allegations, both in its
2 witnesses' depositions and in its discovery responses. To then urge upon the Court that
3 Broadcom had no evidence to support its position demonstrates the reason for calculated
4 orchestration of a deliberate plan to conceal evidence in the case.

5 On November 19, 2006, Qualcomm counsel filed Qualcomm's Motion in Limine to
6 Exclude Evidence Relating to Qualcomm's Participation in the JVT, the Timing of its
7 Disclosures, and the Testimony of Cliff Reader, or, in the Alternative, for Adjudication of
8 Broadcom's Equitable Defenses in a Bench Trial, in which they again argued:

9 Broadcom has conducted extensive discovery relating to QUALCOMM's
10 alleged involvement in the JVT, apparently in an effort to claim that
11 QUALCOMM had some obligation to disclose, prior to filing the present
action in October 2005, that it had patents required to implement the H.264
standard [. . .]

12 It is undisputed that QUALCOMM did not become involved at all in the
13 JVT's proceedings until after the JVT had finalized the H.264 technical
14 specifications, and Broadcom's expert, Dr. Reader, admitted that
15 QUALCOMM had "no influence or effect on the technical content of the
16 H.264 standard prior to its publication in May 2003." [. . .] There is no
evidence that QUALCOMM attended any of the JVT meetings between
December 2001 and May 2003. In fact the first QUALCOMM participation
did not occur until September 2003.

17 (Doc. No. 543-2, Ex. EE at 2) (footnotes omitted.) These two paragraphs contain nothing
18 but false statements.

19 On the same day, Qualcomm counsel filed Qualcomm's Memorandum of
20 Contentions of Fact and Law, in which they similarly asserted under the section entitled
21 "QUALCOMM's Lack of Involvement in H.264 Standardization Process":

22 66. There is no evidence of any involvement of QUALCOMM personnel in
23 the H.264/AVC standardization process prior to September 2003, by which
24 time the technical content of the baseline, main and extended profiles was
25 considered to be frozen and the first issue of the H.264/AVC Standard had
26 been published.

27 67. QUALCOMM employees had only minimal involvement in JVT
28 activities from September 2003 to December 2005, with no technical
contribution documents submitted by any QUALCOMM employee.

68. QUALCOMM had no significant involvement with the development of
the H.264/AVC Standard.

1 (Doc. No. 543-2, Ex. BB at 16 - 17.) Qualcomm counsel then filed Qualcomm's Rebuttal
2 Memorandum of Contentions of Fact and Law on December 4, 2006, in which they
3 asserted:

4 31. QUALCOMM was not a JVT participant leading up to the release of the
5 H.264 standard when it was technically fixed in December 2003 or when it
6 was officially released in May 2003 [. . .]

7 32. Broadcom's allegation that QUALCOMM was involved with the JVT
8 prior to the development and release of the standard is based solely on the
9 appearance of the e-mail address of QUALCOMM employee Viji
Raveendran on an e-mail list for the Ad Hoc Group on AVC verification tests
[. . .] Broadcom offers no other evidence of participation in the JVT by Ms.
Raveendran or any other employee as early as December 2002.

10 33. Ms. Raveendran was not involved in any standards development projects
11 relating to the H.264 standard, nor did she recall receiving submissions or
12 documents related to the standard. Raveendran did not receive information
13 related to the JVT meetings or know of JVT meetings prior to her
14 participation in a separate JVT project, the scalable video coding project,
15 unrelated to the patents in suit or to this litigation.

16 34. Broadcom's only other allegation with respect to QUALCOMM
17 participation in the JVT occurs long after the standard was technically fixed
18 and officially released: the apparent sponsorship of a JVT meeting by
19 QUALCOMM and alleged and unverified recording of a single objection
20 made by QUALCOMM to a proposed change in the profile in September
21 2003, and the appearance of QUALCOMM employee Phoom Sagetong in
22 JVT meetings between December 2003 and in 2004.

23 35. None of these allegations show that QUALCOMM participated in the
24 JVT when the H.264 standard was developed and approved. QUALCOMM's
25 only involvement in the JVT was as part of the unrelated SVC project, and it
26 began in 2005. Mr. Sagetong attended the JVT meetings on behalf of the
27 United States National Body and not as a representative of QUALCOMM.

28 (Doc. No. 543-2, Ex. DD at 8 - 9.)

Qualcomm's motion for summary adjudication was denied on December 5, 2006.
As detailed in previous sections of this Order, all of these assertions of no participation that
were made and re-made by Qualcomm counsel during motions practice for the present
litigation were proven patently false by documents produced by Qualcomm only after a
jury trial was held, after a verdict was reached, after a post-trial hearing on the equitable
issues was held, and after a finding was made by the Court as to these equitable issues.

1 And certainly the statement that “Broadcom has conducted extensive discovery relating to
2 Qualcomm’s alleged involvement in the JVT . . .” is particularly ironic, since Broadcom’s
3 repeated requests were uniformly denied on the stated ground that there was nothing to
4 produce.

5
6 **(3) Misconduct during trial**

7 Qualcomm counsel continued to vigorously argue during trial that Qualcomm did
8 not participate in the JVT until well after the H.264 standard was published in May 2003.
9 Qualcomm counsel stated in his opening statement:

10 Later, in May of '03, the standard is approved and published. And then
11 Qualcomm, in the fall of 2003, it begins to participate not in JVT because it's
12 done. H.264 is approved and published. Qualcomm begins to participate in
what are called professional extensions, things that sit on top of the standard,
additional improvements.

13 (Trial Tr., 107, Jan. 9, 2007.)

14 Then at side bar on January 18, 2007, Qualcomm counsel, in an attempt to keep out
15 of evidence a list of email addresses for a JVT ad hoc group that included the email address
16 of Qualcomm employee Raveendran, represented to the Court, “Actually, there are no
17 emails -- there are no emails.” (Trial Tr., 91, Jan. 18, 2007.) He further stated, “there’s no
18 evidence that any e-mail was actually sent to this list. This is just a list of e-mail . . .
19 addresses. There’s no evidence of anything being sent.” (Trial Tr., 92, Jan. 18, 2007.)
20 These statements were made four days after Qualcomm counsel, while preparing Ms.
21 Raveendran for her testimony, had stripped over fifty pages of emails regarding the JVT
22 from her email archives.

23 Six days later on the morning of January 24, 2007, one of the last days of trial,
24 Qualcomm counsel filed Qualcomm’s Motion for Judgment as a Matter of Law (“JMOL”)
25 Pursuant to Rule 52(c), in which they argued:

26 Broadcom failed to show (1) that Ms. Raveendran ever received a single
27 email related to this list, (2) that anyone on this list ever communicated
regarding the H.264 standard, and (3) that the email list in question was even

1 a JVT list at all.

2 (Doc. No. 479 at 11.)

3 However, later that very same morning, in direct opposition to Counsel's
4 representations at side bar and Qualcomm's argument in its JMOL, Ms. Raveendran
5 testified as follows:

6 Q [by Broadcom counsel]: Did you receive mailings from the [JVT] ad hoc
committee identified in this exhibit?

7 A: During the preparation for this testimony, there were some e-mails
pulled out of my e-mail box. E-mail archive.

8 Q: Were they produced to Broadcom?

9 A: I don't know.

10 (Trial Tr., 53, Jan. 24, 2007.) These emails had not yet been produced to the Court or
11 Broadcom, and, immediately addressing this issue at side bar later on January 24,
12 Qualcomm counsel still argued to the Court,

13 [I]t's not clear to me [the emails are] responsive to anything. So that's
14 something that needs to be determined before they would be produced . . . I'm
talking about whether they were actually requested in discovery.

15 (Trial Tr., 83, Jan. 24, 2007.) Counsel continued,

16 I'm simply representing I haven't seen [the emails], and [whether Broadcom
requested them] hasn't been determined.

17 (Id. at 84.)

18 Qualcomm counsel apparently determined that the emails were in fact responsive,
19 because they produced the emails to Broadcom over the lunch recess on January 24, and
20 Ms. Raveendran was brought back to court to testify about them. Before Broadcom
21 counsel was able to question Ms. Raveendran about the emails, Qualcomm counsel voiced
22 an objection to the Court out of the presence of the jury in pertinent part as follows:

23 There's nothing wrong with the way in which this production has taken place,
24 your Honor. There's been no wrongdoing on the part of Qualcomm in the
way in which these have been provided.

25 (Trial Tr., 193 - 94, Jan. 24, 2007.)

26 After trial, on February 1, 2007, Qualcomm counsel finally admitted by telephone to
27 Broadcom that "on January 14, 2007, attorneys for Qualcomm learned of an archive of

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1 emails [sent to this email list for the JVT ad hoc group] belonging to Viji Raveendran.”
2 (Doc. No. 543-2, Ex. E at 2.) Therefore, on January 14, four days before Qualcomm
3 counsel argued to the Court that “there are no emails” and eight days before Qualcomm
4 counsel argued that Broadcom had failed to prove “[Ms.] Raveendran had ever received a
5 single email related to this list” in Qualcomm’s JMOL, Qualcomm attorneys already knew
6 that there were in fact emails and had pulled them from Ms. Raveendran’s email archive.

7 It is clear to the Court now, despite the attempts made by Qualcomm to minimize the
8 significance of these twenty-one emails, that they were just the “tip of the iceberg,” that
9 over two hundred thousand more pages of emails and electronic documents were produced
10 post-trial that indisputably demonstrate that Qualcomm participated in the JVT from as
11 early as January 2002, that Qualcomm witnesses Irvine, Raveendran, Determan, and other
12 engineers were all aware of and a part of this participation, and that Qualcomm knowingly
13 attempted in trial to continue the concealment of evidence. None of these emails or
14 electronic documents were produced in discovery as requested by Broadcom in multiple
15 requests for production and interrogatories.

16
17 **(4) Misconduct post-trial**

18 Shortly after trial on January 29, 2007, Qualcomm counsel filed an Amended JMOL
19 Pursuant to Rule 52(c) backtracking on their original assertion that Ms. Raveendran had not
20 received any emails sent to the JVT ad hoc group email list. (Doc. No. 491 at 11.)
21 Qualcomm counsel also sent a letter of apology to the Court on January 29, 2007, admitting
22 that Qualcomm counsel’s argument at sidebar on January 18 and Qualcomm’s arguments in
23 its original JMOL were “incorrect” as to the alleged non-existence of any emails sent to
24 Ms. Raveendran through the ad hoc group email list. (Doc. No. 543-2, Ex. D.)

25 Nevertheless, Qualcomm counsel continued to assert no participation in the JVT in
26 its February 2, 2007, Post-Trial Brief Concerning Waiver and Inequitable Conduct. (Doc.
27 No. 503.) In a section entitled “QUALCOMM Did Not Participate In The Development Of
28

1 The H.264 Standard Prior To The Publication of That Standard In May 2003,” Qualcomm
2 counsel argued:

3 QUALCOMM did not attend JVT meetings and did not participate in the
4 development of the H.264 standard prior to May 2003. The first evidence of
5 any JVT participation on behalf of QUALCOMM is the September 2003 JVT
6 meeting minutes, four months after the H.264 standard’s publication.

7 (Id. at 4 - 5) (footnotes omitted.) Citing Ms. Raveendran’s testimony that she “never
8 attended any JVT-related meeting until July 2005,” Qualcomm counsel asserted:

9 The passive and involuntary receipt of unsolicited and unread emails, without
10 more, did not make QUALCOMM a “member” of the JVT and could not
11 create any duty of disclosure under its rules.

12 (Id. at 5.) Then, in a section entitled “No QUALCOMM Participant Was Aware Of The
13 Potential Application Of The Patents-In-Suit To The H.264 Standard During The Relevant
14 Time Period,” Qualcomm counsel further asserted:

15 Prior to July 2005, the QUALCOMM employees who participated in the JVT
16 had no awareness that the patents-in-suit might apply to the H.264 standard . .
17 . Because no QUALCOMM employee ever actually compared the claims of
18 the patents to the standard, QUALCOMM did not know that the
19 patents-in-suit read on the standard, and could not have “knowingly violated”
20 any disclosure duty.

21 (Id. at 6) (footnote omitted.)

22 Qualcomm counsel then ironically stated in their post-trial brief that
23 “[s]tandards-setting misconduct is a serious charge, suggesting sophisticated foul play.”
24 (Id.) The Court completely agrees with this statement and finds that Qualcomm’s standard-
25 setting misconduct with the JVT was indeed “serious” and suggests extremely sophisticated
26 foul play on the part of Qualcomm and its employees. At the post-trial evidentiary hearing
27 on the equitable issues of inequitable conduct and waiver, Qualcomm counsel continued to
28 vigorously argue no participation and no foul play. The Court ultimately found in favor of
Broadcom and against Qualcomm that Qualcomm had indeed waived its patent rights as to
the ‘104 and ‘767 patents in its March 21, 2007 Order. (Doc. No. 528.)

Furthermore, in a letter to Broadcom dated February 8, 2007, Qualcomm counsel
asserted that, while perhaps “there was some fleeting mention of emails in my presence,”

1 he was somehow “not cognizant that the emails from Ms. Raveendran’s archive had been
2 identified” when he flatly asserted to the Court at sidebar on January 18 that no such emails
3 existed:

4 [S]ince the issue of my knowledge [of the twenty-one emails produced on
5 January 24] has been raised, I should add that I cannot completely exclude
6 the possibility that, during those times that I was in the Day Casebeer firm’s
7 trial preparation suites rather than my own firm’s, there was some fleeting
8 mention of emails in my presence. What I can say with certainty now is that,
9 when I told the Court on January 18, 2007 that there was no such emails in
10 evidence, I was not cognizant that the emails from Ms. Raveendran’s archive
11 had been identified.

12 (Doc. No. 543-2, Ex. F at 1.)

13 As stated above, these twenty-one emails were just a hint of the over two hundred
14 thousand pages of emails and electronic documents that were finally produced four months
15 after trial containing direct evidence that multiple representatives of Qualcomm
16 participated in the JVT from the beginning, and that multiple Qualcomm witnesses knew of
17 this participation even as they testified to the contrary at deposition and trial. However,
18 before this production occurred and even after the discovery of the twenty-one emails in
19 Ms. Raveendran’s email archive, Qualcomm counsel continued to insist that they had
20 conducted a reasonable search for responsive documents during discovery and that the
21 twenty-one emails were not responsive because they were irrelevant. Qualcomm counsel
22 wrote in a letter to Broadcom on February 16, 2007:

23 As explained earlier in our meet and confer, QUALCOMM voluntarily
24 produced the [twenty-one] emails during trial in the interest of
25 expeditiousness. We continue to believe that QUALCOMM performed a
26 reasonable search of QUALCOMM’s documents in response to Broadcom’s
27 Requests for Production and that the twenty-one unsolicited emails received
28 by Ms. Raveendran from individuals on the avc_ce reflector are not
responsive to any valid discovery obligation or commitment.

(Doc. No. 543-2, Ex. G at 1.) Qualcomm counsel made these assertions all the while
acknowledging: (1) Broadcom’s July 14, 2006, Request for Production No. 93 requesting
“[a]ll documents referring to or evidencing any participation by Qualcomm in the
proceedings of the JVT, the ISO, the IEC, and/or the ITU-T”; (2) Broadcom’s January 23,

1 2006, Request for Production No. 49 requesting “[a]ll documents given to or received from
2 a standards setting body or group that concern any standard relating to the processing of
3 digital video signals that pertains in any way to any Qualcomm Patent, including without
4 limitation communications, proposals, presentations, agreements, commitments, or
5 contracts to or from such bodies”; and (3) Broadcom’s January 23, 2006, Request for
6 Production No. 50 requesting “[a]ll documents concerning any Qualcomm membership,
7 participation, interaction, and/or involvement in setting any standard relating to the
8 processing of digital video signals that pertains in any way to any Qualcomm Patent.” (Id.,
9 Ex. E at 1.)

10 Correctly rejecting Qualcomm counsel’s continuing insistence that Qualcomm had
11 already conducted a reasonable search for responsive documents with negative result,
12 Broadcom requested in a March 5, 2007 letter that Qualcomm perform searches for nine
13 key phrases in the email archives of twelve key Qualcomm employees:

14 Broadcom requests that Qualcomm immediately search for and produce
15 responsive documents in the email archives of Ms. Raveendran and any other
16 Qualcomm employee who has ever been involved in any way in standard-
17 setting for video compression (whether or not as an actual participant at a
18 standard-setting meeting), dated between January 1, 2000 and December 31,
19 2004.

20 (Doc. No. 543-2, Ex. H at 4 - 5.) In response to this letter, Qualcomm counsel continued to
21 defend Qualcomm’s discovery conduct and object to Broadcom’s request for further
22 discovery in a March 7, 2007, reply as follows:

23 For the reasons discussed at length previously, we disagree with each of your
24 arguments concerning the responsiveness of those emails and believe your
25 negative characterization of QUALCOMM’s compliance with its discovery
26 obligation to be wholly without merit . . .

27 Your request for completely new and patently overbroad discovery—plainly
28 beyond the scope of anything propounded during the appropriate period
before trial—cannot on any basis be justified now, more than a month after
trial has concluded.

(Id., Ex. I at 1.) Nevertheless, upon Broadcom’s threat to involve the Court, Qualcomm
agreed to search the email archives of Qualcomm witnesses Raveendran, Bao, Irvine,

1 Ludwin, and Sagetong for the search terms “JVT,” “Joint Video Team,” “AVC,”
2 “Advanced Video Coding,” “H.264,” “H264,” “MPEG-4 Part 10,” “MPEG4 Part 10,” and
3 “Gary Sullivan.” (Id., Ex. I at 2.) The Court finds it incredible that Qualcomm never
4 conducted such an obvious search for these key terms in the email archives of these key
5 Qualcomm witnesses during the many months of discovery that occurred before trial, since
6 Broadcom clearly had requested all of it and more.

7 One month later on April 6, 2007, Qualcomm counsel informed Broadcom through
8 email that this search had produced “a large volume that numbers in the thousands” of
9 responsive documents, which clearly indicate to the Court Qualcomm’s participation in the
10 JVT. (Doc. No. 543-2, Ex. J at 1.) It was only then that the Court received any notice of
11 this post-trial production of documents in a letter addressed to the Court directly from
12 Qualcomm lead trial counsel on April 9, 2007. (Doc. No. 543-2, Ex. K.) In that letter,
13 Counsel stated that Qualcomm had discovered “a substantial number of electronic
14 documents” that “appear to be inconsistent with arguments that we made at trial, and at the
15 post-trial hearing, regarding Broadcom’s affirmative defense of waiver.” (Id. at 1.)
16 Counsel then apologized to the Court “[p]rofessionally and personally . . . for asserting
17 positions that we would not have taken had we known of the existence of these
18 documents.” (Id.) However, Counsel insisted that “we presented our arguments in good
19 faith and certainly would not have knowingly presented argument that we believed to be
20 contrary to fact.” (Id. at 1 - 2.)

21 That same day, the Court received a separate letter of apology directly from
22 Qualcomm’s General Counsel and Executive Vice President Louis Lupin, in which Mr.
23 Lupin conveyed “[his] regret and apologies regarding the circumstances described in
24 [Qualcomm lead trial counsel’s April 9 letter].” (Doc. No. 543-2, Ex. L at 1.) Mr. Lupin
25 claimed that “QUALCOMM takes its obligations to the Court, opposing parties, and the
26 community seriously, and will take all necessary steps to live up to the high expectations
27 QUALCOMM has always set for itself.” (Id.) However, in an interview with the San
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1 Diego Union-Tribune about this post-trial production, Mr. Lupin reportedly stated that
2 these newly discovered documents “‘on the whole’ bolstered Qualcomm’s arguments
3 during trial” and that “[w]e kind of hurt ourselves’ by not finding them before trial.”
4 Kathryn Balint, Another face-off in patent battles, THE SAN DIEGO UNION-TRIBUNE, May
5 31, 2007, at C1. The Court finds, in sharp disagreement to Mr. Lupin’s characterization of
6 the new evidence, that the documents in fact fully bolstered Broadcom’s waiver arguments
7 and completely refuted Qualcomm’s waiver defenses at trial.

8 Qualcomm General Counsel Lupin made an illuminating statement as to
9 Qualcomm’s “nothing-to-lose” mentality in filing this patent infringement suit against
10 Broadcom. According to a January 27, 2007, article in the San Diego Union-Tribune
11 following the jury verdict of no infringement, Mr. Lupin characterized the case as follows:

12 There certainly was a significant upside potential for us, but it was all upside,
13 no downside. . . . For Broadcom, it was all downside, no upside. It probably
14 won’t have any impact on us one way or the other. It’s just the latest round in
15 a series of battles.

16 (Doc. No. 543-2, Ex. Q at 2.) Indeed, if Qualcomm is correct in its contention that its ‘104
17 and ‘767 patents are infringed by the H.264 standard, it would be in a lone position to
18 extract licenses from all companies producing H.264-compliant products, a considerable
19 “upside” opportunity for Qualcomm’s bottom line.

20 **IV. CONCLUSION**

21 In light of all of the above evidence finally revealed, the eventual collapse of
22 Qualcomm’s concealment efforts exposes the carefully orchestrated plan and the deadly
23 determination of Qualcomm to achieve its goal of holding hostage the entire industry
24 desiring to practice the H.264 standard by insulating its IPR from the JVT so that the JVT
25 would lose the opportunity to mitigate, if not to avoid, Qualcomm’s IPR in the
26 development of the H.264 standard. Broadcom, ignorant of the existence of the ‘104 and
27 ‘767 patents, designed and is in the process of manufacturing numerous H.264-compliant
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1 products.

2 The Federal Circuit has held that unenforceability of a patent due to inequitable
3 conduct before the PTO extends to continuations and reissues of the original patent. See
4 Afga Corp. v. Creo Prods. Inc., 451 F.3d 1366, 1379 (Fed. Cir. 2006); Hewlett-Packard,
5 882 F.2d at 1563; Hoffman-La Roche v. Lemmon Co., 906 F.2d 684, 688 - 89 (Fed. Cir.
6 1990). While divisions of the original patent may not be unenforceable “where the claims
7 are subsequently separated from those tainted by inequitable conduct . . . and where the
8 issued claims have no relation to the omitted prior art,” Baxter Int’l, Inc. v. McGaw, Inc.,
9 149 F.3d 1321, 1332 (Fed. Cir. 1998), by analogizing misconduct before a standards setting
10 body resulting in waiver to misconduct before the PTO resulting in inequitable conduct,
11 this Court finds all claims of the ‘104 and ‘767 patents tainted by Qualcomm’s waiver and
12 that any divisional, continuation, continuation-in-part, or reissue application of either patent
13 would be similarly tainted.

14 Therefore, under the totality of evidence produced both before and after the jury
15 verdict, by reason of Qualcomm’s intentional and persistent insulation of their directly
16 related IPR from the activities and the analyses of the JVT when they were obligated to
17 reveal it, this Court **FINDS**, pursuant to Rambus, that Qualcomm has waived its rights to
18 enforce the ‘104 and ‘767 patents and their continuations, continuations-in-part, divisions,
19 reissues, or any other derivatives of either patent.

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27 This type of conduct was the direct focus and basis for the rule of law set out clearly

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1 in January 2003 in Rambus, in which the Federal Circuit sets out the disclosure duty for
2 patents that read on or apply directly to the activities of the standards-setting process. See
3 Rambus, 318 F.3d at 1096 - 1102. The facts of this case demonstrate the importance of the
4 Rambus decision to the success of the industry standards protocols that have been
5 achieving significant benefits for businesses and consumers globally.

6 Judgment will be entered concurrently with this Order.

7
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9 **IT IS SO ORDERED**

10
11 DATED: August 6, 2007

12 

13 Hon. Rudi M. Brewster
14 United States Senior District Court Judge

15 cc: Hon. Barbara Lynn Major
16 United States Magistrate Judge

17 All Counsel of Record
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