

Exhibit 1

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FILED UNDER SEAL

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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION**

APPLE INC., a California corporation,
Plaintiff,

vs.

SAMSUNG ELECTRONICS CO., LTD., a
Korean business entity, SAMSUNG
ELECTRONICS AMERICA, INC., a New
York corporation, and SAMSUNG
TELECOMMUNICATIONS AMERICA,
LLC, a Delaware limited liability company,
Defendants.

SAMSUNG ELECTRONICS CO., LTD., a
Korean business entity, SAMSUNG
ELECTRONICS AMERICA, INC., a New
York corporation, and SAMSUNG
TELECOMMUNICATIONS AMERICA,
LLC, a Delaware limited liability company,
Counterclaim-Plaintiffs,

v.

APPLE INC., a California corporation,
Counterclaim-Defendant.

Civil Action No. 11-CV-01846-LHK

Expert Report of Richard L. Donaldson, Esq.

March 22, 2012

CONTAINS APPLE AND SAMSUNG ATTORNEYS' EYES ONLY INFORMATION

TABLE OF CONTENTS

	Page
1 I. Introduction and Summary of Report.....	1
2 II. Qualifications.....	2
3 A. Experience in the Industry	2
4 B. Testifying and Consultant Experience	3
5 III. Materials Considered.....	4
6 IV. Opinion	5
7 A. Telecommunication Standards Are Crucial to Innovation And	
8 Must Be Protected From Abuse	5
9 B. FRAND Licensing Obligations Are Necessary To Prevent Patent	
10 Hold-Up.....	6
11 C. The Development Of UMTS And Other Wireless Communication	
12 Standards	8
13 D. [REDACTED]	
14 E. [REDACTED]	
15 F. [REDACTED]	
16 G. [REDACTED]	
17	
18	
19 V. Trial Exhibits	37
20 VI. Previous Testimony and Compensation	38
21 VII. Supplementation of Opinions	38
22	
23	
24	
25	
26	
27	
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1 **I. Introduction and Summary of Report**

2 1. I have been retained as an expert in this case by Plaintiff and Counterclaim
3 Defendant Apple Inc. ("Apple"). I expect to testify at trial regarding the matters set forth in this
4 report, if asked about them by the Court or the parties' attorneys.

5 2. I understand that the Defendants and Counterclaim Plaintiffs in this case,
6 Samsung Electronics Co. Ltd. and Samsung Telecommunications America, LLC (together,
7 "Samsung"), have brought a number of claims against Apple, including asserting twelve U.S.
8 patents against Apple.¹ I also understand that Samsung has declared to the European
9 Telecommunications Standard Institute ("ETSI") seven of the twelve patents it asserted against
10 Apple as essential to the Universal Mobile Telecommunications System ("UMTS")
11 telecommunications standard, which was developed by the Third Generation Partnership Project
12 ("3GPP"). The seven patents Samsung has declared to ETSI and now asserts against Apple are
13 the '516 Patent, '941 Patent, '001 Patent, '410 Patent, '604 Patent, '792 Patent, and '867 Patent
14 (together, "Declared Essential Patents"). As I describe in more detail below, when Samsung
15 notified ETSI of its Declared Essential Patents, it made a commitment to: (i) grant irrevocable
16 licenses to its Declared Essential Patents to all present and future implementers of the UMTS
17 standard; and (ii) to offer such licenses on fair, reasonable, and non-discriminatory ("FRAND")
18 terms.

19 3. I have been asked for my expert opinion on three subjects. *First*, I have been
20 asked whether the license terms that Samsung offered to Apple for its Declared Essential Patents
21 were fair, reasonable, and non-discriminatory. *Second*, I have been asked whether Samsung's
22 conduct in pursuing an injunction against Apple for alleged infringement of Samsung's Declared
23 Essential Patents is consistent with its obligations under its FRAND undertaking. *Third* ██████████

24 ¹ I understand that the twelve Samsung patents are U.S. Patent No. 6,928,604 (the "'604 patent'"), U.S. Patent
25 No. 7,050,410 (the "'410 patent'"), U.S. Patent No. 7,069,055 (the "'055 patent'"), U.S. Patent No. 7,079,871 (the
26 "'871 patent'"), U.S. Patent No. 7,200,792 (the "'792 patent'"), U.S. Patent No. 7,362,867 (the "'867 patent'"), U.S.
27 Patent No. 7,386,001 (the "'001 patent'"), U.S. Patent No. 7,447,516 (the "'516 patent'"), U.S. Patent No. 7,456,893
(the "'893 patent'"), U.S. Patent No. 7,577,460 (the "'460 patent'"), U.S. Patent No. 7,675,941 (the "'941 patent'"),
28 and U.S. Patent No. 7,698,711 (the "'711 patent'").

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[REDACTED]

4. To summarize my conclusions, it is my opinion that: *First*, [REDACTED]

[REDACTED]

[REDACTED] *Second*, Samsung's pursuit of an injunction against Apple for alleged infringement of its Declared Essential Patents violates a key component of the FRAND commitment—namely, that *all* implementers of the relevant standard are entitled to a license on FRAND terms. As Samsung has asserted in other lawsuits, seeking an injunction for declared essential patents violates the patent holder's FRAND commitment. *Third*, [REDACTED]

[REDACTED]

II. Qualifications

A. Experience in the Industry

5. I have spent most of my career in the area of licensing of intellectual property. I worked at Texas Instruments ("TI") for thirty-one years as a patent attorney. When I retired in April 2000, I was Senior Vice President and General Patent Counsel.

6. Throughout my time at TI, my responsibilities included developing patent licensing strategies and negotiating patent licenses for TI. I personally negotiated hundreds of patent licenses. The patent licenses varied in size from covering only a few patents to up to hundreds or even thousands of patents. I negotiated patent licenses with virtually all of the major

1 computer and semiconductor manufacturers for patents relating to personal computers and other
2 devices.

3 7. Many of these negotiations involved patents claimed to be essential to practice an
4 industry standard. In these negotiations, a major concern of potential licensees was non-
5 discrimination; none of them wanted to pay a rate or agree to other material terms significantly
6 different from what their competitors had negotiated.

7 8. While at TI, I developed and implemented licensing strategies for integrated
8 circuits (including baseband controllers, processors, and analog to digital converters), personal
9 computers, telecommunications devices, and other products. As General Patent Counsel, I was
10 responsible for all aspect of protecting and enforcing intellectual property for TI worldwide.
11 This included responsibility for determining whether TI's interests would be served by
12 participation in various standards-setting organizations ("SSOs"), and if TI decided to participate
13 in the SSO, managing licensing issues associated with that work. Before approving TI's
14 participation in an SSO, I would assist TI in determining the scope of the commitment TI was
15 willing to make regarding licensing its patents. When TI joined an SSO, TI had duties to
16 disclose intellectual property rights ("IPR") and would make commitments to license patents on
17 fair, reasonable and non-discriminatory ("FRAND") terms. I also had some involvement with
18 the European Telecommunications Standards Institute ("ETSI"), although TI's involvement with
19 ETSI became more extensive after I retired.

20 9. I graduated from Kansas State University in 1965 with a B.S. in Electrical
21 Engineering. I earned my J.D. from St. Louis University in 1969, graduating *cum laude*. I
22 received an L.L.M. in Patent and Trade Regulation Law from George Washington University in
23 1973.

24 B. Testifying and Consultant Experience

25 10. During my career at TI, I testified a number of times in state and federal courts
26 and before the U.S. International Trade Commission and submitted declarations to courts
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1 overseas regarding licensing policies, industry licensing practices, and patent portfolio
2 evaluation.

3 11. Since retiring from TI, I have consulted regarding patent royalties and damages in
4 patent infringement cases, including litigation involving patents as to which FRAND
5 commitments have been made. I have been qualified as an expert on licensing and royalty issues
6 in dozens of cases over the last decade. Many of the cases on which I have consulted have
7 involved licensing and royalty issues—including with respect to patents to which FRAND
8 commitments have been made—in the telecommunications industry.

9 12. I have published multiple articles in the licensing area, including “Licensing and
10 Patent Portfolio Management,” “Making Your Intellectual Property Assets Work,” and “IP Audit
11 and Patent Valuation.” I have given speeches on licensing and intellectual property related
12 topics, including “Win-Win to Windfall – An Evolution of Licensing Practices,” “Licensing and
13 Technology Transfer,” “Intellectual Property Capital Management” and “Intellectual Property
14 Asset Management.” I have also been a member of the faculty on a number of continuing legal
15 education programs related to licensing issues, and have served on panels on topics such as
16 “Licensing in the Semiconductor Industry,” “International Patent Strategy,” “High Tech
17 Litigation Megacourse 2001,” and “Managing an Intellectual Property Portfolio to Maximize the
18 Value to a Corporation.”

19 13. A copy of my resume is curriculum vitae is attached as Appendix A.

20 **III. Materials Considered**

21 14. The materials I have considered in forming the opinions in this report are cited
22 throughout. Additionally, I have reviewed certain license agreements produced by Apple and
23 Samsung in this case. A list of the documents I have reviewed is attached as Appendix B.

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1 **IV. Opinion**

2 A. Telecommunication Standards Are Crucial to Innovation And Must Be
3 Protected From Abuse

4 15. Industry standards offer many advantages to industry and the public—they
5 facilitate product interoperability and compatibility, and encourage widespread technology
6 deployment. Industry standards also reduce barriers to entry, encourage economies of scale, and
7 create unified platforms for the development and launch of new products. In the
8 telecommunications industry, a large number of companies are engaged in the development and
9 manufacture of smart phones and other consumer devices that are compatible with UMTS and
10 other telecommunication standards.

11 16. Once a technology is standardized, companies making equipment compliant with
12 the relevant standard must use the standardized technology. Patents necessary to practice the
13 standardized technology are often referred to as “essential patents.” SSOs must balance the
14 competing goals of unimpeded access to the standard against patent holders’ desire to obtain fair
15 compensation for the use of their intellectual property. Allowing the owner of an essential patent
16 to deny licenses or charge unreasonably high or discriminatory royalty rates would frustrate the
17 SSOs’ goal of creating efficient and economically viable standards. To reconcile the conflicting
18 goals, SSOs often require members to disclose IPR that may be “essential” to the proposed
19 standard before the standard is finalized, and further, to agree to license declared essential
20 patents to all interested parties on FRAND terms.

21 17. Once a standard is established, a patentee holding declared essential patents that
22 purportedly cover features within a standard could, left unconstrained, be in a position to demand
23 exorbitant royalties or other terms from implementers of the standard, far in excess of what is
24 warranted by the intrinsic value of the technology, because implementers of the standard are
25 “locked-in” to using the standard. That is because, as the patentee knows, it would be less costly
26 for the designer to pay the excessive royalty or capitulate to unreasonable terms than to incur the
27 cost of switching or face a risk of injunction. This dynamic is often referred to as “patent hold-
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1 up.” As Samsung has explained in prior litigation: “The payoff for owners of patents that are
2 incorporated into the standard is substantial because the entire industry will need a license to the
3 patents essential to the standard” Samsung First Amend. Compl. at 5, *Samsung Elec. Co. v.*
4 *InterDigital Commc’ns Corp.*, No. 07-CV-0167 (D. Del. Sept. 14, 2007) (APLNDC-WH-
5 A0000022677). SSOs address this potential problem by requiring participants to disclose patents
6 or other IPR that might be essential to a proposed standard and to agree to license that IPR on
7 FRAND terms to any parties wishing to implement that standard.

8 B. FRAND Licensing Obligations Are Necessary To Prevent Patent Hold-Up

9 18. For the reasons described above, both the timely disclosure of essential patents,
10 and compliance with commitments to license on FRAND terms all patents that are declared
11 essential, are necessary to achieve the benefit of standardization, while avoiding abusive
12 practices that harm the industry and consumers. The disclosure requirement is designed to
13 ensure that the SSO is able to weigh the costs and benefits of alternative technologies to
14 accomplish a particular feature in the standard (or including a particular feature at all) with full
15 knowledge of IPR claims that may cover the technology at issue. The FRAND commitment
16 imposes a crucial constraint on the power to demand exorbitant royalties and other licensing
17 terms that the standardization process confers on holders of claimed essential IPR.

18 19. The requirement to license declared essential patents on FRAND terms is taken
19 seriously among industry participants, and in my experience, is widely understood to require that
20 holders of declared essential patents subject to FRAND commitments be willing to accept much
21 lower royalties and other licensing terms than a holder of patents that are not declared essential
22 to a standard. This is due in substantial part to the telecommunication industry’s understanding
23 that the value of declared-essential patents typically comes largely or entirely from the fact that a
24 license to those patents is claimed to be necessary to practice an industry standard, and not from
25 the intrinsic value of the claimed invention. As I described above, the “lock-in” effect from
26 standardization means that declared essential patent holders will have a much larger pool of
27 potential licensees than if the same patent had not been included in the standard. It is well
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1 understood in the telecommunications industry, that the trade-off for inclusion of a patent into a
2 standard, is that the holder of a declared-essential patent that has made a FRAND declaration
3 *must* make its technology available on fair, reasonable, and non-discriminatory terms.

4 20. It is important to note that due to the massive number of essential patent
5 declarations made to most SSOs (thousands of patents have been declared essential to UMTS
6 alone), licensing professionals generally make no attempt to assess whether any given patent, or
7 even a subset of a portfolio, is indeed actually essential to a standard. In the case of most
8 standardized technologies, certainly including the UMTS interface, such an analysis would be
9 impracticable and uneconomical to perform in the context of licensing negotiations.

10 21. Further, it is well understood among licensing professionals and in the
11 telecommunications industry more generally that a commitment to license on FRAND terms
12 extends to all patents that the patentholder claims are essential to the standard, whether or not
13 any particular patent has been found objectively essential to the standard in question. Indeed, the
14 system under which product suppliers are able to rely on FRAND commitments in developing
15 and marketing standard-compliant products would break down if FRAND declarants were not
16 required to license on FRAND terms *all* patents they have declared-essential to the standard.
17 Among other things, a party seeking to implement a standard would required a definitive
18 determination that any given declared essential patent truly is essential to that standard before it
19 could insist on a FRAND license.

20 22. In addition to the requirement that declared standard-essential patents be licensed
21 on fair, reasonable, and non-discriminatory terms, a FRAND undertaking also prohibits the
22 declarant from seeking an injunction for declared-essential patents. For industry participants, the
23 logic is clear—by making an irrevocable commitment to grant licenses on FRAND terms, the
24 declarant has (i) consented to any implementer of the relevant standard practicing its declared
25 essential patents; and (ii) acknowledged that a FRAND royalty payment—or a damages award
26 amounting to a FRAND royalty—will make it whole for any use of the patented technology.
27 Indeed, Samsung itself has recognized this principle in its litigation with Ericsson, where
28

1 Samsung argued that “[t]he Claimant, having committed itself to licensing the Patents upon fair,
2 reasonable and non-discriminatory terms, has accepted that it can be compensated in monetary
3 terms for any use of the Patents In the premises, should the Claimant be entitled to any relief,
4 which is denied, the appropriate relief is the grant of a damages equivalent to a fair, reasonable
5 and nondiscriminatory royalty.” Re-amended Defence and Counterclaim of Samsung at ¶¶
6 108.1, 109, *Telefonaktiebolaget LM Ericsson v. Samsung Electronics UK Ltd.*, No. HC06
7 C00618 (High Court of Justice, Chancery Division, Patents Court, Mar. 15, 2007) (APLNDC-
8 WH-A00000-22602). In sum, by declaring a patent to be essential and simultaneously
9 committing to offer FRAND terms for a license to the patent, the licensor forfeits its right to seek
10 injunctive relief.

11 23. Absent the prohibition against seeking an injunction, a holder of purportedly
12 essential IPR would be able to engage in the type of patent “hold-up” that could ultimately
13 destabilize the standard-setting process. From my experience negotiating numerous licenses to
14 declared standards-essential patents, it is well understood that parties that have participated in
15 standards-setting and make FRAND commitments under the ETSI IPR Policy would be acting
16 antithetically to that Policy and the purposes behind standard-setting if they were to pursue
17 injunctive relief. Indeed, by seeking an injunction, a FRAND declarant impermissibly abuses
18 hold-up power and gains enhanced opportunities to extract exorbitant royalties and licensing
19 terms (precisely what the ETSI IPR Policy was designed to constrain). By seeking injunctions
20 against those practicing the relevant standard, holders of declared-essential patents also threaten
21 to stifle competition by excluding new entrants to the market, either by actually obtaining
22 injunctions to bar new products or by discouraging investment by causing innovators to fear that
23 their nascent products will be subject to exclusion through an injunction and their investments in
24 those products wasted.

25 C. The Development Of UMTS And Other Wireless Communication
26 Standards

1 24. Over the last three decades, standards for wireless communications have evolved
2 and become considerably more complex. Mass marketing of cell phones began in the 1980s with
3 phones that operated on analog networks. The second generation of mobile wireless technology,
4 commonly referred to as “2G,” began the transition to digital technology. 2G networks and
5 advanced 2G networks, sometimes referred to as 2.5G networks, also began supporting more
6 data-intensive applications, such as email, web browsing, and sending and receiving pictures by
7 phone. The third generation (“3G”) technologies were developed to support even more data-
8 intensive operations commonly associated with smartphones like the iPhone, such as multimedia,
9 more sophisticated web browsing, music and video downloading, and global positioning systems
10 (“GPS”). The key word, however, is *support*—3G does not itself provide the technology for a
11 web browser, music or video downloading, or GPS. Nor must a 3G phone offer those features to
12 comply with a 3G telecommunications standard. As I explain further below, 3G phones vary
13 widely in features and functionality, while all complying with a 3G telecommunications
14 standard.

15 25. The most widely implemented digital telecommunications standards worldwide
16 are based on the Global System for Mobile Communications (“GSM”) technology, a 2G
17 standard. Development of GSM began in Europe with the formation of the Groupe Special
18 Mobile within the European Conference of Postal and Telecommunications Administrations
19 (“CEPT”). In 1988, at the urging of the European Commission, European national posts and
20 telecommunications ministries formed ETSI, a non-profit standards organization headquartered
21 in France. In 1989, development of GSM was transferred to the auspices of ETSI, where
22 standardization of GSM was completed.

23 26. The third generation of the GSM family of standards is UMTS, which employs
24 wide-band code division multiple access (“WCDMA”) technology. The UMTS standard was
25 designed to efficiently support significantly increased speeds and capacity over limited spectrum
26 bandwidth, thereby supporting new and enhanced services and applications such as mobile e-
27 commerce, broadcast television, position location, and mobile multimedia web browsing,
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1 including music and video downloads. Again, the word is *support*—UMTS itself does not
2 provide the technology for these features.

3 27. UMTS has been standardized by the 3rd Generation Partnership Project
4 (“3GPP”). 3GPP is a collaboration of six SSOs from around the world, including the ETSI.
5 3GPP promotes global convergence in the design of mobile phone systems based on GSM by
6 producing globally-applicable specifications for those systems that SSOs can incorporate into
7 their standards.

8 D. Samsung’s Patent Disclosures And FRAND Commitments Regarding
9 UMTS

10 28. I have reviewed formal declarations that Samsung has made to ETSI regarding the
11 essentiality of the Declared Essential Patents to the UMTS standard. Samsung’s declaration
12 included an irrevocable, “blanket” commitment to license any of its Declared Essential Patents on
13 FRAND terms. I have also reviewed particularized commitments that Samsung made to license
14 on FRAND terms each of the Declared-Essential Patents at issue in this case. *See* Samsung
15 Decl. to ETSI SMG2 (Dec. 14, 1998) (APLNDC-WH-A 000009374); Samsung IPR & Info.
16 State. to ETSI (Sept. 19, 2003) (APLNDC-WH-A 000009375); Samsung IPR & Info. State. to
17 ETSI (May 16, 2006) (APLNDC-WH-A 000009415); Samsung IPR & Info. State. to ETSI (Jul.
18 8, 2007) (APLNDC-WH-A 000009442); and Samsung IPR & Info. State. to ETSI (Jul. 24,
19 2008) (APLNDC-WH-A 000009482).

20 E. [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 30. I have reached this conclusion based on several factors. *First*, Samsung has
27 claimed in prior litigation that the cumulative royalty paid to *all* holders of UMTS essential
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1 patents should be approximately 5%, and allocating to Samsung its proportional share (based on
2 declared-essential patents) of this aggregate royalty for all patents that have been declared
3 essential to the UMTS standard is one (of among several possible ways) to determine a FRAND
4 royalty. [REDACTED]

5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
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23 [REDACTED]
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25 [REDACTED]
26 [REDACTED]
27 [REDACTED]

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1 a) [REDACTED]

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3 i) Samsung's Prior Position that the Cumulative Royalty for
4 UMTS Should be Capped at 5% and Applied to a Base
5 Limited to the Standardized Technology

6 31. In my experience, it is not unusual for many companies to claim to hold patents
7 essential to the practice of a given standard. For certain standards, especially ones for wireless
8 communications, hundreds or even thousands of patents may be declared essential. The
9 existence of multiple declared-essential patents can lead to a problem known as "royalty
10 stacking," where multiple companies can claim royalties on a single product.

11 32. In other litigation, Samsung has accurately described the problem presented by
12 royalty stacking as follows: if a proposed royalty "fails to take into account the cumulative
13 royalty costs required to be paid to patent holders by undertakings wishing to comply" with a
14 standard and all relevant royalties were similarly sized, "the cumulative cost would be
15 prohibitive and would therefore prevent, restrict or distort competition in the mobile handset
16 market." Re-amended Defense and Counterclaim of Samsung at ¶ 80.4, *Telefonaktiebolaget LM*
17 *Ericsson* (Bates No. APLNDC-WH-A0000022602 at 22631).

18 33. Samsung has previously taken the position that the aggregate royalty rate for all
19 WCDMA declared-essential patents should be "about 5 percent." See Hearing Transcript at 91,
20 *In re Certain 3G Wideband Code Division Multiple Access (WCDMA) Mobile Handsets and*
21 *Components Thereof [InterDigital v. Samsung]*, No. 337-TA-601 (I.T.C. July 8, 2008) Bates No.
22 APLNDC-WH-A0000025511; see also Re-amended Defence and Counterclaim of Samsung at ¶
23 80.4.6, *Telefonaktiebolaget LM Ericsson*, (Bates No. APLNDC-WH-A0000022602 at 22634)
24 (Samsung stating that a 5-7 percent cumulative royalty rate for GSM-compliant products
25 "represents an upper bound to a fair cumulative rate for a licensee with no significant intellectual
26 property to cross-license.").

27 34. Nokia, among other participants in the development of the WCDMA standard,
28 has expressed a similar view. See Press Release, Nokia Corp., *Nokia Advocates Industry-Wide*
Commitment to 5% Cumulative IPR Royalty for WCDMA (May 8, 2002), (Bates No. APLNDC-

1 WH-A0000025509) (advocating an industry-wide commitment that royalty rates for WCDMA
2 technology not exceed 5% cumulatively because “setting a target for cumulative royalty rates for
3 WCDMA patents at 5% will further promote the growth of the mobile industry, support
4 sustainable competitive business opportunities, and usher in a new and exciting era of mobile
5 services and applications”).

6 35. Samsung’s prior statements are broadly consistent with my experience regarding
7 licensing in the telecommunications industry. In particular, I have observed that industry
8 participants recognize the need for some regard for the cumulative royalties payable for
9 declared-essential patents to ensure that companies seeking to implement ETSI standardized
10 technology can economically do so, regardless of whether they own essential patents.

11 36. I note that when Samsung and others in the telecommunications industry were
12 advocating for a 5% cumulative royalty for all declared standards-essential patents, a much
13 greater proportion of the total value of a handset was attributable to the cellular interface than is
14 the case now with respect to sophisticated smartphones. When standards like UMTS were
15 developed in the 1990s, and licenses were negotiated in that period, this was even more true. In
16 the early days of the standards, it might have been reasonable to treat the sales price of a handset
17 as a royalty base (and then to apply a reasonable royalty rate to that base), because there was a
18 much tighter correspondence between phones and standardized technology. That
19 correspondence no longer exists for most mobile devices, and especially for high-end
20 smartphones.

21 37. As early as 2007, Samsung itself recognized that the value of handsets were
22 “increasingly” comprised of functions unrelated to the cellular interface and the correspondence
23 between phones and standardized technology was eroding. *See* Re-amended Defence and
24 Counterclaim of Samsung at ¶ 80B-80C, *Telefonaktiebolaget LM Ericsson*, (Bates No.
25 APLNDC-WH-A0000022602 at 22637) (Samsung stating that the sales price of handsets will
26 “increasingly [be] determined by extraneous features that do not relate to the [UMTS] licensed
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1 telecommunications technology, such as photo and video cameras, games, colour screens, mp3
2 players, and radio.”).

3 38. Now that the cellular interface comprises only a very limited proportion of the
4 total value of a smartphone (given that smartphones now include computing, gaming, email,
5 camera, calendar, media player, apps warehouse, etc.), it is no longer sensible or consistent with
6 FRAND to use as a royalty based on the ASP of a smartphone. As discussed in detail in Section
7 E(e), in my opinion, the royalties should be based on the component that provides the claimed
8 feature or other reasonable measure of the technology claimed—*not the entire device*.

9 39. For UMTS functionality, the smallest saleable unit that embodies that technology
10 is the UMTS baseband chipset. As discussed in detail in Section E(e), below, the UMTS chipset
11 is an appropriate royalty base because, among other reasons, it provides a consistent valuation
12 for UMTS functionality regardless of what additional features have been integrated into the
13 device and the level of the production chain at which royalties are assessed.

14 40. An alternative would be to use a basic communication device lacking the
15 advanced features that are characteristic of a smartphone. If the chipset were used as the base—
16 and, in my opinion it is the optimal base—then the appropriate and reasonable royalty rate might
17 increase somewhat as compared to a royalty applied to a basic communication device. ■

18 [REDACTED]

19 [REDACTED]

20 ii) The Fairfield Report

21 41. One approach, among others, to computing Samsung’s appropriate share of a 5%
22 aggregate royalty rate, is to determine the proportion of the total number of declared-essential
23 patents or declared essential patent families that are owned by Samsung.

24 42. Several studies have been published that assess the number of patents that have
25 been declared essential to the UMTS standard. One recent, well-respected study was published
26 by Fairfield Resources International in 2009 (“Fairfield Report”).² That study examined patents

27 ² Fairfield Resources International, Review of Patents Declared as Essential to WCDMA Through
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1 declared essential to UMTS through December 2008. The Fairfield Report determined that as of
2 December 31, 2008, more than fifty different companies³ had declared approximately 1,889
3 patent families to WCDMA and related standards.⁴

4 43. Also according to the Fairfield Report, Samsung owns 103 of these 1,889 patent
5 families.⁵ In other words, the Fairfield Report found that Samsung owns 5.45% of the patent
6 families that have been declared essential to WCDMA.

7 44. Generally, when calculating the FRAND rates for declared essential patents, a
8 simplifying assumption can be made that, absent other evidence, all patents hold an equal value.
9 This represents a pragmatic way to calculate a fair and reasonable royalty rate for each patent at
10 issue. Under this assumption, a fair and reasonable royalty rate can be arrived at without
11 analyzing the individual patents for novelty or value outside of their status as a claimed essential
12 patent. This approach is consistent with my experience and industry practice. [REDACTED]

13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

24 December, 2008 (Jan. 6, 2009) (Bates No. S-ITC-003360437).

25 ³ *Id.* at S-ITC-003360444, at S-ITC-003360459-60.

26 ⁴ *Id.* at S-ITC-003360444-45.

27 ⁵ *Id.* at S-ITC-003360463.

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46. The seven patents asserted by Samsung in this case represent only a portion of Samsung's portfolio of declared-essential patents. [REDACTED]

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47. [REDACTED]

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48. Moreover, I understand from further analysis of the Fairfield Report that Samsung and other participants in UMTS standardization may have declared patents to 3GPP and ETSI that are not actually essential to practice the standard. According to the Fairfield Report, of the 1,889 patent families declared essential to UMTS, only 529 families are actually essential to the standard; of those 529 families just 15 are owned by Samsung.⁸ [REDACTED]

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49. I also understand that the Mannheim Regional Court in Germany recently found that all three of the declared essential patents that Samsung had asserted against Apple there were not infringed by Apple (and therefore not actually essential to the UMTS standard).¹⁰

[REDACTED]

⁸ Fairfield Report at S-ITC-003360464.

⁹ *Id.* at S-ITC-003360463-64 (showing that of Samsung's 103 declared essential patent families, 15 were judged essential).

¹⁰ *See, e.g., Samsung Elecs. GmbH v. Apple Inc.*, Judgment by Mannheim Regional Ct. (Mar. 2, 2010), Bates No. APLNDC-WH-A0000024992 at APLNDC-WH-A0000024982 (“The admissible statement of claim had to be dismissed because the Plaintiff has not conclusively set forth an infringement of Claim 1 asserted by the opposed embodiments.”).

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96. Indeed, in its litigation against Ericsson, Samsung itself advocated for a royalty on less than the full sales price of its products because sales prices of Samsung's mobile telecommunications products "are in significant part, and increasingly, determined by extraneous features that do not relate to the licensed telecommunications technology, such as photo and video cameras, games, color screens, mp3 players, and radio." Re-amended Defence and Counterclaim of Samsung at ¶ 80C, *Telefonaktiebolaget LM Ericsson (APLNDC-WH-A0000022602 at APLNDC-WH-A0000022637-38*.

97. As Samsung asserted in its UK litigation with Ericsson, the determination of a FRAND rate for patents that have been declared essential to the UMTS standard must take such factors into account. Limiting the royalty base to the portion of the product that embodies the declared-essential patents (if at all)—the baseband chipset—is the best way to do so. Based upon my experience as a licensing expert, do so is consistent with industry practice.

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a) *Samsung's Decision to Seek an Injunction on Its Declared Essential Patents Violates Its FRAND Undertaking*

100. I understand that in prior lawsuits, Samsung has taken the position that by making a FRAND declaration to ETSI or 3GPP, a licensor gives up its right to seek an injunction for the alleged infringement of the declared patents. This prior position of Samsung's reflects my experience in the industry—participants in SSOs like ETSI and 3GPP understand that by declaring IPR and making a FRAND declaration, they must license to all implementers of the standard. Pursuing an injunction is antithetical to this commitment. And if injunctions were granted, it would undermine the ETSI standard-setting process and IPR Policy by giving holders of declared-essential patents extraordinary power to hold up and extract exorbitant licensing terms from implementers that are locked-in to the UMTS standard.

101. In my experience negotiating standards-essential licenses, market participants understand that a FRAND commitment enables parties to bargain over license terms without the threat of an injunction giving the declared-essential patent holder power to hold-up the potential licensee for exorbitant royalties or other license terms. Further, it is my opinion that innovators will be discouraged from bringing new, innovative devices to market if they are forced to negotiate with entrenched market players that wield the threat of seeking an injunction for alleged infringement of declared standard-essential patents.

102. While I led TI's licensing program, TI never sought an injunction for declared-essential patents, nor was it ever sued for injunctive relief with respect to declared-essential patent. Moreover, during my tenure with TI, I do not recall that TI was even threatened with an injunction for the alleged infringement of declared-essential patents. It is widely recognized in the telecommunications industry and other industries in which standards play a significant role that by making a FRAND commitment, the patent holder has represented that a FRAND

1 royalty—whether settled on by the parties during arms-length negotiations or determined by a
2 court—will make it whole in the event of infringement and that it would be a breach the FRAND
3 commitment to seek an injunction against a standard implementer. During my career at TI, I
4 encountered no licensing negotiation counterparty that held a contrary view.

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V. Trial Exhibits

112. If called as a witness at trial, I may rely on visual aids and demonstrative exhibits that demonstrate the bases of my opinions. Examples of these visual aids and demonstrative exhibits may include, for example, interrogatory responses, deposition testimony and deposition exhibits, as well as charts, or diagrams.

113. Other than as referred to in this report, I have not yet prepared any exhibits for use at trial as a summary or support for the opinions expressed in this report, but I expect to do so in accordance with the Court's scheduling orders.

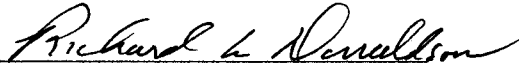
1 **VI. Previous Testimony and Compensation**

2 114. My previous trial and deposition testimony is set forth in my resume, attached as
3 Appendix A.

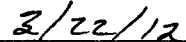
4 115. I am compensated for my time at the rate of \$475 for each hour of service that I
5 provide in connection with this case. That compensation is not contingent upon my
6 performance, the outcome of the case, or any issues involved in or related to this case.

7 **VII. Supplementation of Opinions**

8 116. I reserve the right to adjust or supplement my analysis in light of any critique of
9 or comments on my report or alternative opinions advanced by or on behalf of Samsung.

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15 Richard L. Donaldson, Esq.

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17 March 22, 2012