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Plaintiff Apple Inc. ("Apple"), through its undersigned counsel, complains and alleges against Telefonaktiebolaget LM Ericsson and Ericsson Inc. (collectively, "Ericsson") as follows:

NATURE OF THE ACTION

- 1. This action arises from Ericsson's (1) assertion of patents as "essential" to—or necessary to practice—industry cellular standards such as the "Long Term Evolution" ("LTE") standard, when those patents are in fact not essential, and (2) royalty demands for such patents that exceed both black-letter damages principles and Ericsson's contractual commitments to license the patents on "fair, reasonable, and non-discriminatory" ("FRAND") terms.
- 2. Apple and Ericsson currently have a license agreement that covers many of Ericsson's allegedly standard-essential patents (the "Apple-Ericsson Agreement"). That agreement was entered into January 2008, soon after Apple introduced the iPhone and two years before Apple introduced the iPad.
- 3. Since then, the iPhone has revolutionized the cellular industry, leading a transformation of cellular devices from simple products used to make and receive phone calls and send and receive basic data messages, into complex computers with countless functionalities and multiple communications capabilities (e.g., Wi-Fi, Bluetooth, near field communications) beyond cellular. The iPad has likewise revived the previously moribund tablet computer segment, leading a surge of development of powerful yet easy-to-use tablets. iPhones and iPads have enjoyed enormous commercial success, based on consumer demand for the many technologies that comprise the unique Apple user experience.
- 4. As this technological revolution has unfolded in the mobile device industry, courts and regulators have become increasingly vigilant in holding patent holders to their actual inventions—and preventing them from engaging in abusive practices that seek to unduly disrupt competitors' products or extract excessive patent royalties. Thus, for example, courts and regulators have criticized attempts by traditional cellular companies like Ericsson to assert patents allegedly essential to cellular standards to tax the value arising from the vast amount of non-cellular functionality in modern smartphones and tablet computers. This is particularly

 important for devices like the iPhone and iPad, whose value derives principally from their non-standardized technologies, such as their industrial design, operating system, and touch interface. Ericsson seeks to exploit its patents to take the value of these cutting-edge Apple innovations, which resulted from years of hard work by Apple engineers and designers and billions of dollars of Apple research and development—and have nothing to do with Ericsson's patents.

- 5. This is part of a broader problem in the industry. When Ericsson and other licensors seek excessive royalties from (or, even more threatening, injunctions against) companies that supply products that support cellular standards, it creates harmful disincentives to investing in (a) the standardized functionalities and (b) even more important, the non-cellular, product-differentiating technologies. Companies should not be punished for such investments, yet the licensing practices of Ericsson—which seek to appropriate the value added by non-standardized technologies—would do just that.
- 6. The law forbids abusive licensing practices. As a matter of black-letter patent law regarding patent valuation, patent royalties must be based on a royalty base that begins with the smallest saleable unit that substantially embodies the patented functionality—and that base may need to be further apportioned to isolate the value of the patented invention. And the royalty rate applied to that base must be reasonable and duly cognizant of other royalties levied by other patent holders on the royalty base—to avoid the problem of an unduly high total "royalty stack."
- 7. For patents that companies have declared as "essential" to cellular standards, the black-letter patent law is reinforced by contractual obligations to license such patents on FRAND terms. FRAND royalties must use the proper royalty base and a proper royalty rate. And FRAND royalties must reflect the actual technical contribution of the patented technology to the standard—rather than (a) the value of all the technologies incorporated in an entire standard, (b) the "lock in" value that arises from standardization of technologies—in which technologies gain value simply because companies must use them as part of the standard, and (c) the value of an entire device embracing many technologies beyond the standard.
 - 8. As shown by its public statements (see, e.g., Paragraphs 40-47 below), Ericsson

has refused to change its long-standing licensing practices to adapt to the current technological and legal environment, and instead demands royalties for FRAND-encumbered patents—such as its allegedly LTE-essential patents—based on a percentage of the value of entire smartphones or tablet computers. Ericsson makes these excessive demands rather than properly (a) selecting a royalty base that corresponds to (at most) the component that substantially embodies cellular-processing functionality, *i.e.*, the baseband processor chip, and (b) seeking a reasonable rate applied to that royalty base, a rate that would not result in royalty-stacking problems.

9. Moreover, Ericsson asserts patents as standard-essential when the patents are not, in fact, essential to cellular standards like LTE. No royalties at all should be owed for such patents.

- allegedly LTE-essential patents, by asserting such patents in litigation against other companies. The patents asserted in such litigation presumably represent what Ericsson considers to be its strongest allegedly LTE essential patents. Each of the patents in this case Ericsson has asserted in prior litigation. These patents are not, in fact, essential to LTE and not infringed by Apple. And if any of these patents were essential, Ericsson's licensing demands for such patents violate patent damages law and its FRAND commitments.
 - 12. Accordingly, a case or controversy presently exists between Apple and Ericsson,

 regarding whether Apple is currently accruing liability to Ericsson for any LTE patent royalties—and if so, regarding how to set royalties for such patents. Apple cannot be liable for royalties for allegedly LTE-essential patents that are not, in fact, essential to LTE. To the extent that Ericsson has any patents that are actually essential to LTE, both patent law principles and its FRAND commitments require Ericsson to set royalties using a proper royalty base and a proper royalty rate.

13. By this complaint, Apple seeks (a) declaratory judgments that specific patents that Ericsson has declared as essential to LTE and asserted in litigation are not, in fact, essential to LTE or infringed by Apple's products that support LTE¹; or, (b) alternatively, if any of these specific patents are actually essential to LTE and infringed by Apple, declaratory judgments setting reasonable royalties that (i) use a royalty base of, at most, the component that substantially embodies the alleged invention, and (ii) apply a reasonable royalty rate that avoids royalty-stacking problems.

THE PARTIES

- 14. Apple is a California corporation having its principal place of business at 1 Infinite Loop, Cupertino, California 95014.
- 15. On information and belief, Telefonaktiebolaget LM Ericsson is a Swedish corporation having its corporation headquarters at Torshamnsgatan 23, Kista, 164 83 Stockholm, Sweden. On information and belief, a substantial portion of Telefonaktiebolaget LM Ericsson's business operations relates to enforcement of patents by pursuing licensing demands and litigation against other companies.
- 16. On information and belief, Ericsson Inc. is a Delaware corporation having a principal place of business at 6300 Legacy Drive, Plano, Texas 75024. On information and belief, Ericsson Inc. is a wholly-owned subsidiary of Ericsson Holding II Inc., a Delaware corporation, which in turn is a wholly-owned subsidiary of Telefonaktiebolaget LM Ericsson.

¹ These products include iPhone 5, iPhone 5c, iPhone 5s, iPhone 6, iPhone 6 Plus, and the Wi-Fi + Cellular versions of the iPad (3rd generation), iPad (4th generation), iPad Air, iPad Air 2, iPad mini, iPad mini 2, and iPad mini 3.

17. Together, these two entities are referred to herein as "Ericsson."

18. On information and belief, Ericsson has offices and employees in California and regularly conducts business in California.

JURISDICTION

- 19. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332,² 1338(a), 2201, 2202, and the patent laws of the United States, 35 U.S.C. § 1 et seq.
- 20. This Court has personal jurisdiction over Ericsson because it has a place of business in this District. Further, the acts of Ericsson caused injury to Apple within this District.
- 21. The facts in the full Complaint, including but not limited to those recited in Paragraphs 1-18 and 24-57 (incorporated by reference here), support jurisdiction in this case.

VENUE

22. Venue is proper within this district under 28 U.S.C. §§ 1391(b) and (c).

INTRADISTRICT ASSIGNMENT

23. For purposes of intradistrict assignment under Civil Local Rules 3-2(c) and 3-5(b), this Intellectual Property Action will be assigned on a district-wide basis.

BACKGROUND

Apple's Products

- 24. Apple revolutionized the telecommunications industry in 2007 when it introduced the groundbreaking iPhone, a product that dramatically changed the way people view mobile phones. Reviewers, analysts, and consumers immediately recognized the iPhone as a "game changer." In one small and lightweight handheld device, the iPhone offered a color multi-touch screen, distinctive user-interface, music storage and playback, a mobile computing platform for handheld applications, and full access to the Internet, as well as typical mobile phone functions, all packaged in an eye-catching design that remains widely acclaimed today.
- 25. Apple introduced another revolutionary product, the iPad, in 2010. The iPad is an elegantly designed computer tablet with a color touch screen, a user interface reminiscent of the

² The amount in controversy—particularly given Ericsson's unfair and unreasonable licensing policies—exceeds the statutory minimum.

iPhone's user interface, and robust functionality that spans both mobile computing and media storage and playback. Because of its innovative technology and distinctive design, the iPad achieved instant success.

- 26. Behind the success of Apple's iPhone and iPad products are countless instances of creative achievement, technical innovation, and astute business judgment by Apple employees. In addition to these innovations, Apple's iPhone and iPad products also contain various components and technologies acquired from third-party suppliers that are available to all cellular mobile devices. One such component is the baseband processor used to perform standardized calculations and procedures involved in cellular communication protocols. Qualcomm supplies these baseband processors for incorporation into Apple products.
- Apple's products, and in particular the Qualcomm baseband processors within Apple's products, support certain cellular communication protocols incorporated into industry standards. Such standards are formulated and publicly distributed by standard setting organizations ("SSOs"). One such organization is the European Telecommunications Standards Institute ("ETSI"), which helped create the LTE standard.

ETSI and Ericsson's Contractual FRAND Commitments

- 28. ETSI is an independent, non-profit SSO that produces globally-accepted standards for the telecommunications industry. ETSI has more than 750 members from 63 countries across five continents, including Ericsson and Apple. ETSI created or helped to create numerous telecommunication standards, including the 2G/GSM, 3G/WCDMA/UMTS, and 4G/LTE cellular communication standards.
- 29. Standards are beneficial insofar as they help allow devices made by one company to communicate with devices made by other companies—because these devices can speak the same language. This allows consumers to have confidence that products bought from numerous manufacturers will interoperate with each other.
- 30. On the other hand, standards can lead to problems when companies claim to hold patents essential to the standards, and use that as leverage to demand excessive royalties from

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product companies. This is exacerbated by "over-declaration" of patents as essential-many patents that are claimed by their owners to be essential are not, in fact, essential. ETSI has no gatekeeper testing the declarations of essentiality for accuracy. Product suppliers like Apple are faced with claims of infringement of many patents that are actually not essential—and that, even if essential, would not support the excessive demands made by the patent owners. Further, patent "hold-up" occurs "when the holder of a SEP demands excessive royalties after companies are locked into using a standard." Ericsson, Inc. v. D-Link Sys., Inc., --- F.3d ---, Nos. 2013-1625, 2013-1631, 2013-1632, 2013-1633, 2014 WL 6804864, at *2 (Fed. Cir. Dec. 4, 2014).

- 31. ETSI has adopted an Intellectual Property Rights ("IPR") Policy, incorporated as Annex 6 of the ETSI Rules of Procedure. The ETSI IPR Policy requires members to disclose standard-essential and potentially standards-essential patents and patent applications to ETSI and its other members. The IPR Policy further requests that standard-essential patent ("SEP") owners submit an irrevocable written undertaking that they are prepared to grant irrevocable licenses on FRAND terms and conditions. If a FRAND undertaking is not available, the IPR Policy provides for ETSI to attempt to change the standard to avoid the patent in question.
- 32. Ericsson has submitted IPR undertakings to ETSI with regard to each of the patents at issue in this matter. As such, Ericsson is contractually obligated to grant licenses to these patents to Apple on FRAND terms.



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Ericsson's LTE Patent Litigations

- 35. Ericsson has aggressively litigated allegedly standard-essential patents, demanding excessive royalties and seeking injunctive relief and exclusion orders. For example, when Ericsson and Samsung did not renew a telecommunications patent license agreement, Ericsson "concluded that it ha[d] no option other than legal action" and filed several suits against Ericsson, Press Release, "Ericsson takes action for fair and reasonable patent Samsung. licensing" (November 27, 2012) (available at http://www.ericsson.com/news/1660699). Similarly, Ericsson sued ZTE "to obtain a licensing agreement," Owen Fletcher, "ZTE Sues Ericsson in China, Escalating Clash," WALL STREET JOURNAL, April 12, 2011, http://www.wsj.com/articles/SB10001424052748704662604576256440263520456, and alleged that it had "no choice" but to sue TCL for infringement because TCL would not agree to Ericsson's terms for licensing allegedly standard-essential patents. Complaint ¶ 29, Ericsson Inc. v. TCL Commc'n Tech. Holdings, Ltd., No. 2:14-cv-667 (E.D. Tex. June 3, 2014) (D.I. No. 1).
- 36. As part of its campaign to use allegedly standard-essential patents to obtain unfair and improper remedies, Ericsson has brought litigation against other companies in which Ericsson has asserted patents that it had declared to ETSI as essential to LTE. In Ericsson Inc. and Telefonaktiebolaget LM Ericsson v. Samsung Electronics Co., Ltd., et al., No. 6:12-cv-894-LED (E.D. Texas), Ericsson asserted against Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America LLC four patents that it

had declared to ETSI as essential to LTE: U.S. Patent Nos. 8,214,710, 8,169,992, 8,023,990, and 6,445,917.

- 37. Ericsson asserted two of those four patents—U.S. Patent Nos. 8,169,992 and 6,445,917—in Certain Electronic Devices, Including Certain Wireless Communication Devices, Tablet Computers, Media Players, and Televisions, and Components Thereof, Investigation No. 337-TA-862 (International Trade Commission) against Samsung Electronics America, Inc., Samsung Telecommunications America LLC, and Samsung Electronics Co. Ltd.
- 38. In Ericsson Inc. and Telefonaktiebolaget LM Ericsson v. Samsung Electronics Co., Ltd., et al., No. 6:12-cv-895-LED (E.D. Texas), Ericsson asserted against Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America LLC three other patents that it had declared to ETSI as essential to LTE: U.S. Patent Nos. 8,036,150, 7,660,417, and 6,985,474.
- 39. In each of the three actions against Samsung in which Ericsson asserted infringement of patents it declared to ETSI as essential to LTE, Ericsson also sought injunctive relief, or, in the case of the International Trade Commission investigation, an exclusion order. Such requests are consistent with Ericsson's requests for injunctive relief in other actions involving allegedly standard-essential patents.

Ericsson's LTE Licensing Position

40. Ericsson has stated its belief that "[a]ny company using cellular connectivity needs a license to Ericsson's industry leading patent portfolio comprising 27,000 patents." Ericsson, Press Release, "Ericsson strengthens focus on IPR licensing" (Jan. 12, 2012) (available at http://www.ericsson.com/news/1576822) (explaining that the 27,000 patents in its portfolio "cover a wide range of technologies, from wireless access (2G, 3G and 4G) to WLAN and the whole Information and Communications Technology (ICT) value chain"). See also "Press Release: Ericsson and ZTE resolve patent license issues," January 20, 2012 (available at http://www.ericsson.com/news/1579022) ("any company which sells mobile devices or systems needs a license from Ericsson").

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- 41. Ericsson has staked out a highly aggressive licensing posture for the LTE standard—consistently emphasizing royalties based on end product pricing. In April 2008, Ericsson stated that "a reasonable maximum aggregate royalty level for LTE essential IPR in handsets is a single-digit percentage of the sales price." Ericsson, Press Release "Wireless Industry Leaders commit to framework for LTE technology IPR licensing" (April 14, 2008) (available at http://www.ericsson.com/news/1209031). Ericsson has further stated that its "licensing arrangements will be made according to Ericsson's proportional share of the standard IPR that relates to the relevant product category," (Ericsson, Press Release "Ericsson confirms first LTE license agreements" (June 23. 2009) (available at http://www.ericsson.com/news/1324253); see also Ericsson, Press Release, "Essential Patents LTE" and (September 13. 2012) (available at http://www.ericsson.com/res/thecompany/docs/press/backgrounders/essential patents and lte p ress_backgrounder.pdf)), and that it "expects to hold 25 percent of all essential patents in LTE." (Ericsson. "LTE In-depth information," http://www.ericsson.com/thecompany/press/mediakits/lte/information (last visited Jan. 12, 2015).
- 42. In fact, according to the ETSI intellectual property rights database, Ericsson has less than 10% of declared-essential patents for ETSI cellular standards. See ETSI, "ETSI IPR Online Database," http://ipr.etsi.org. Moreover, declarations of patent essentiality to ETSI do not mean the declared patents are actually essential. ETSI does not review essentiality declarations or confirm their accuracy.
- 43. Nonetheless, according to Ericsson's publicly professed methodology, it is entitled to 25% of total LTE royalties of a single-digit percentage of end product prices. Ericsson former director of patents and licensing, Eric Stasik, has reported that Ericsson thus expects to seek LTE royalties of 1.5 percent of the price of full devices like handsets. Eric Stasik, "Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunications Standards," les Nouvelles, Sept. 2010 at 115, n.14 (available at

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http://www.investorvillage.com/uploads/82827/files/LESI-Royalty-Rates.pdf) (reporting that Ericsson stated that the Ericsson "royalty rate for LTE is therefore expected to be around 1.5 percent for handsets" based on a "maximum aggregate royalty level of 6-8 percent for handsets").

- 44. In its public statements, Ericsson has never retreated from the position that it is entitled to an approximate 25 percent share of a total LTE "royalty stack" based on a percentage of the end prices of entire LTE devices—such as full smartphone or full tablet computers. And Ericsson has never accepted that LTE licensing should begin with a component-focused royalty base, to which a reasonable rate is applied.
- 45. Taken together with its aggressive approach to litigation, Ericsson's patent licensing approach, as presented to the Swedish Network for Innovation & Technology Transfer Support, relies on the "implied threat of litigation" to target the "[l]icensee's sale of infringing products"—in Apple's case, handsets and tablets—as the "royalty base." Ericsson, "Licensing," at 20, 24 (March 12, 2010) (available at http://www.techylib.com/en/view/bottlelewd/ericssons patent_activities_snitts). Such practices have drawn the attention of regulators such as the Competition Committee of India, which has investigated Ericsson for its standard-essential patent licensing practices, including, among other things, basing royalty demands on end product—rather than component—prices and limiting potential licensees' negotiating ability through restrictive Non-Disclosure Agreements. See In Re: Intex Technologies (India) Ltd. and Telefonaktiebolaget LM Ericsson (Publ), Order under Section 26(1) of The Competition Act, 2002, Case No. 76/2013 (Competition Commission of India Jan. 16. (available 2014) at http://www.cci.gov.in/May2011/OrderOfCommission/261/762013.pdf).
- 46. Indeed, as recently as a December 2014 presentation at a conference regarding intellectual property, standards, and competition law held in Beijing, China, Ericsson continued to suggest that using the end product as the royalty base—rather than the relevant component within that product—is not a form of patent hold-up.

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47. Moreover, Ericsson has made rule-making proposals and policy submissions to standard-setting organizations with the apparent intent of insulating from challenge Ericsson's licensing practices—including its excessive royalty demands and its improper attempts to use allegedly standard-essential patents to obtain injunctive relief.

Patents-in-Suit

- 48. Each of the patents-in-suit has (a) been declared by Ericsson to be essential to LTE and (b) asserted by Ericsson in litigation. These facts, coupled with
- create a substantial case or controversy between Apple and Ericsson regarding whether the patents-in-suit are actually essential to the LTE standards and infringed by Apple's Products that support LTE—and, if any of these patents is actually essential, regarding how to set a FRAND royalty for such patents.
- 49. U.S. Patent No. 8,214,710 ("'710 patent") is entitled "Method and Apparatus for Processing Error Control Messages in a Wireless Communication System" and bears an issuance date of July 3, 2012. A copy of the '710 patent is attached hereto as Exhibit 1.
- 50. U.S. Patent No. 8,169,992 ("'992 patent") is entitled "Uplink Scrambling During Random Access" and bears an issuance date of May 1, 2012. A copy of the '992 patent is attached hereto as Exhibit 2.
- 51. U.S. Patent No. 8,036,150 ("'150 patent") is entitled "Method and a Device for Improved Status Reports" and bears an issuance date of October 11, 2011. A copy of the '150 patent is attached hereto as Exhibit 3.
- 52. U.S. Patent No. 8,023,990 ("'990 patent") is entitled "Uplink Scheduling in a Cellular System" and bears an issuance date of September 20, 2011. A copy of the '990 patent is attached hereto as Exhibit 4.
- 53. U.S. Patent No. 7,660,417 ("'417 patent") is entitled "Enhanced Security Design for Cryptography in Mobile Communication Systems" and bears an issuance date of February 9, 2010. A copy of the '417 patent is attached hereto as Exhibit 5.

- 54. U.S. Patent No. 6,985,474 ("'474 patent") is entitled "Random Access in a Mobile Telecommunications System" and bears an issuance date of January 10, 2006. A copy of the '474 patent is attached hereto as Exhibit 6.
- 55. U.S. Patent No. 6,445,917 ("'917 patent") is entitled "Mobile Station Measurements with Event-Based Reporting" and bears an issuance date of September 3, 2002. A copy of the '917 patent is attached hereto as Exhibit 7.
- 56. On information and belief, each of the '710, '992, '150, '990, '417, '474, and '917 patents is assigned to Defendant Telefonaktiebolaget LM Ericsson.
- 57. None of these patents is essential to LTE or infringed by Apple. Moreover, for each of these patents, Ericsson has breached its FRAND commitment by taking the position that it is entitled to device-level royalties rather than setting royalties using a component-focused royalty base and a reasonable rate applied to that base.

COUNT I

(Declaration of Non-Infringement of U.S. Patent No. 8,214,710)

- 58. Apple repeats and realleges paragraphs 1-57 of this Complaint.
- 59. The '710 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '710 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 60. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 61. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '710 patent.
- 62. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '710 patent.

<u>COUNT II</u>

(Declaration of FRAND Royalties for U.S. Patent No. 8,214,710)

- 63. Apple repeats and realleges paragraphs 1-62 of this Complaint.
- 64. Ericsson has contractually committed to license the '710 patent on FRAND terms.
- based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its FRAND commitments, including for the '710 patent.
- 66. Ericsson's licensing approach, moreover, discriminates against companies like Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '710 patent.
- 67. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 68. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '710 patent.
- 69. To the extent that the '710 patent is actually essential to LTE and infringed by Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '710 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent.

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As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '710 patent in this manner.

COUNT III

(Declaration of Non-Infringement of U.S. Patent No. 8,169,992)

- 70. Apple repeats and realleges paragraphs 1-69 of this Complaint.
- 71. The '992 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '992 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 72. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 73. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '992 patent.
- Apple is entitled to a judicial declaration that it has not infringed and does not 74. infringe the '992 patent.

COUNT IV

(Declaration of FRAND Royalties for U.S. Patent No. 8,169,992)

- Apple repeats and realleges paragraphs 1-74 of this Complaint. 75.
- 76. Ericsson has contractually committed to license the '992 patent on FRAND terms.
- 77. Ericsson has taken the position that royalties for LTE-essential patents should be based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its

FRAND commitments, including for the '992 patent.

- 78. Ericsson's licensing approach, moreover, discriminates against companies like Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '992 patent.
- 79. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 80. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '992 patent.
- Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '992 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent. As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '992 patent in this manner.

COUNT V

(Declaration of Non-Infringement of U.S. Patent No. 8,036,150)

- 82. Apple repeats and realleges paragraphs 1-81 of this Complaint.
- 83. The '150 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '150 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 84. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a

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declaratory judgment.

- 85. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '150 patent.
- 86. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '150 patent.

COUNT VI

(Declaration of FRAND Royalties for U.S. Patent No. 8,036,150)

- 87. Apple repeats and realleges paragraphs 1-86 of this Complaint.
- 88. Ericsson has contractually committed to license the '150 patent on FRAND terms.
- 89. Ericsson has taken the position that royalties for LTE-essential patents should be based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its FRAND commitments, including for the '150 patent.
- 90. Ericsson's licensing approach, moreover, discriminates against companies like Apple whose products' pricing is based principally on unique, non-standardized, productdifferentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '150 patent.
- 91. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
 - 92. A judicial declaration is necessary and appropriate so that Apple may ascertain its

rights regarding a royalty for the '150 patent.

93. To the extent that the '150 patent is actually essential to LTE and infringed by Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '150 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent. As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '150 patent in this manner.

COUNT VII

(Declaration of Non-Infringement of U.S. Patent No. 8,023,990)

- 94. Apple repeats and realleges paragraphs 1-93 of this Complaint.
- 95. The '990 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '990 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 96. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 97. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '990 patent.
- 98. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '990 patent.

COUNT VIII

(Declaration of FRAND Royalties for U.S. Patent No. 8,036,990)

- 99. Apple repeats and realleges paragraphs 1-98 of this Complaint.
- 100. Ericsson has contractually committed to license the '990 patent on FRAND terms.
- 101. Ericsson has taken the position that royalties for LTE-essential patents should be based on a percentage of the price of entire devices (e.g., smartphones and tablet computers).

The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its FRAND commitments, including for the '990 patent.

- Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '990 patent.
- 103. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 104. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '990 patent.
- Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '990 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent. As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '990 patent in this manner.

COUNT IX

(Declaration of Non-Infringement of U.S. Patent No. 7,660,417)

- 106. Apple repeats and realleges paragraphs 1-105 of this Complaint.
- 107. The '417 patent is not essential to the LTE standard, and Apple has not infringed

and does not infringe, directly or indirectly, any claim of the '417 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.

- 108. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 109. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '417 patent.
- 110. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '417 patent.

COUNT X

(Declaration of FRAND Royalties for U.S. Patent No. 7,660,417)

- 111. Apple repeats and realleges paragraphs 1-110 of this Complaint.
- 112. Ericsson has contractually committed to license the '417 patent on FRAND terms.
- based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its FRAND commitments, including for the '417 patent.
- Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in

violation of Ericsson's FRAND commitments, including for the '417 patent.

- 115. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 116. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '417 patent.
- Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '417 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent. As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '417 patent in this manner.

COUNT XI

(Declaration of Non-Infringement of U.S. Patent No. 6,985,474)

- 118. Apple repeats and realleges paragraphs 1-117 of this Complaint.
- 119. The '474 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '474 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 120. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 121. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '474 patent.
- 122. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '474 patent.

COUNT XII

(Declaration of FRAND Royalties for U.S. Patent No. 6,985,474)

- 123. Apple repeats and realleges paragraphs 1-122 of this Complaint.
- 124. Ericsson has contractually committed to license the '474 patent on FRAND terms.
- based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its FRAND commitments, including for the '474 patent.
- 126. Ericsson's licensing approach, moreover, discriminates against companies like Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '474 patent.
- 127. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 128. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '474 patent.
- 129. To the extent that the '474 patent is actually essential to LTE and infringed by Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '474 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent.

As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '474 patent in this manner.

COUNT XIII

(Declaration of Non-Infringement of U.S. Patent No. 6,445,917)

- 130. Apple incorporates and realleges paragraphs 1-129 of this Complaint.
- 131. The '917 patent is not essential to the LTE standard, and Apple has not infringed and does not infringe, directly or indirectly, any claim of the '917 patent, either literally or under the doctrine of equivalents, through the making, using, offering to sell, sale, or import of Apple's products that support LTE.
- 132. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 133. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '917 patent.
- 134. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '917 patent.

COUNT XIV

(Declaration of FRAND Royalties for U.S. Patent No. 6,445,917)

- 135. Apple repeats and realleges paragraphs 1-134 of this Complaint.
- 136. Ericsson has contractually committed to license the '917 patent on FRAND terms.
- based on a percentage of the price of entire devices (e.g., smartphones and tablet computers). The law requires, however, that royalties be set using as the royalty base (at most) the smallest saleable unit that substantially embodies the patented technology, and then applying a reasonable royalty rate to that base. For LTE patents, that royalty base would be (at most) the baseband processor chip that performs LTE processing functions. By seeking LTE royalties based on system-level pricing, Ericsson has sought unfair and unreasonable royalties in violation of its

FRAND commitments, including for the '917 patent.

- Apple whose products' pricing is based principally on unique, non-standardized, product-differentiating technologies. Under Ericsson's approach, by incorporating its own unique technologies, Apple is subjecting its products to higher royalty demands than other companies' products that do not incorporate such features and functionalities. This discrimination is also in violation of Ericsson's FRAND commitments, including for the '917 patent.
- 139. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 140. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding a royalty for the '917 patent.
- Apple, then Ericsson must (a) select as a royalty base, at most, the smallest saleable unit substantially embodying the '917 patent, and (b) apply to that royalty base a reasonable royalty rate that reflects the actual technical contribution to the standard that is attributable to the patent. As an alternative to its request for a declaration of non-infringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '917 patent in this manner.

PRAYER FOR RELIEF

WHEREFORE, Apple prays for relief, as follows:

- 1. declarations that each of the patents-in-suit is not essential to the LTE standard and is not infringed by Apple, through the making, using, offering to sell, sale, or import of Apple's products that support LTE;
- 2. as an alternative, for any of the patents-in-suit found to be actually essential to the LTE standard and infringed by Apple, a declaration of a FRAND royalty that (a) uses a royalty base of (at most) the smallest saleable unit substantially embodying the claimed invention and (b) sets a reasonable rate applied to that royalty base

- that reflects the actual technical contribution to the standard that is attributable to
- a ruling that Ericsson cannot seek injunctive relief or exclusion orders against Apple based on the patents-in-suit, but rather is limited to (at most) FRAND royalties as described above; and
- an award of any other remedy or relief to which Apple may be entitled and which is deemed appropriate by the Court.

JURY DEMAND

Apple demands a jury trial on all issues and claims so triable.

Respectfully submitted,

WILMER CUTLER PICKERING HALE AND DORR LLP

Mark D. Selwyn

Attorneys for Plaintiff Apple Inc.

REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED