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UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

APPLE INC.,

Plaintiff,

vs.

QUALCOMM INCORPORATED,

Defendant.

Case No. **'17CV0108 GPC NLS**

REDACTED COMPLAINT FOR DAMAGES, DECLARATORY JUDGMENT AND INJUNCTIVE RELIEF

DEMAND FOR JURY TRIAL

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Plaintiff Apple Inc. ("Apple"), through its undersigned counsel, complains and alleges against QUALCOMM Incorporated ("Qualcomm") as follows:

NATURE OF THE ACTION

1. Law-enforcement agencies around the globe are actively investigating Qualcomm's illegal business practices; in the past two years alone, Qualcomm has been declared a monopolist by three separate governments. Qualcomm pursues its illegal practices through a secret web of agreements designed to obfuscate its conduct. In at least one such agreement, Qualcomm inserted a gag order that prevented an aggrieved party from seeking relief that could curb Qualcomm's illegal conduct, in an effort to keep courts and regulators in the dark and its coerced customers quiet.

2. Qualcomm was one among many companies that contributed to the development of standards related to how cellular phones connect to voice and data networks. As a contributor, Qualcomm is entitled to a fair royalty based on the value of its particular contribution. Qualcomm is not entitled to collect royalties based on the contribution of others to the standard, or unrelated innovation by companies that utilize the standard—but this is precisely the business model that Qualcomm has established and that it protects through monopoly power and unlawful licenses. In order to purchase Qualcomm chips or obtain access to patents pledged to a cellular standard, Qualcomm demands that third parties pay Qualcomm a royalty much greater than the value of Qualcomm's contribution to the standard—a value based on the entire price of the innovative products that only incidentally incorporate the standard.

3. What this means in the case of the iPhone® is that when Apple engineers create a revolutionary new security feature such as touch ID, which enables breakthrough technologies like Apple Pay, Qualcomm insists on royalties for these and other innovations it had nothing to do with and royalty payments go

up. When Apple spends billions redefining the concept of a smartphone camera, Qualcomm's royalty payments go up. Even when Apple sells an iPhone with added memory—256GB instead of 128GB—Qualcomm collects a larger royalty just because of that added memory. Apple products are among the most innovative in the world, yet because of its monopoly power, its suppression of the disclosure of information to government agencies investigating Qualcomm, and an abusive licensing model, Qualcomm believes it is entitled to collect its "tribute" on every such improvement.

4. Apple, which has been overcharged billions of dollars on Qualcomm's illegal scheme, brings this action to recover its damages, enjoin Qualcomm from further violations of the law, and request declaratory relief. Among Apple's damages are nearly $1 billion that Qualcomm owes to Apple under an agreement between the two companies. Qualcomm claims that Apple has forfeited those amounts by responding to requests in the course of an investigation by the Korea Fair Trade Commission ("KFTC"), which recently levied the largest fine in its history against Qualcomm. Qualcomm has withheld the required contractual payments from Apple even though the agreement clearly permits Apple to respond to the KFTC's lawful investigation and requests for information. If that were not enough, Qualcomm then attempted to extort Apple into changing its responses and providing false information to the KFTC in exchange for Qualcomm's release of those payments to Apple. Apple refused.

5. Apple also seeks redress for Qualcomm's abuse of its monopoly power in the technologies used to connect to cellular networks. Constant connectivity over cellular networks has become part of our everyday lives. The iPhone was not the first cellular phone or even the first smartphone, but it revolutionized the industry and is the gold standard by which all other smartphones are judged. To be a cellular phone at all, an iPhone must be able to connect to the wide variety of cellular

networks in use around the world.

6. Having a common set of standards for these cellular networks is beneficial to consumers because it encourages investment in infrastructure and technology. Common standards allow cellular phones to work together and then permit companies like Apple the opportunity to innovate in building great products.

7. Standardization can be beneficial, but only if those holding intellectual property that is part of the standard make that intellectual property widely available on terms that fairly compensate the holder of the intellectual property while recognizing the monopoly power obtained through standardization. That is why, for patents that companies have declared "essential" to cellular standards, patent law is reinforced by contractual obligations to license such patents on fair, reasonable, and non-discriminatory ("FRAND" or "RAND") terms. FRAND commitments are the heart of the standard setting process.

8. Qualcomm broke its promise and has breached its FRAND commitments. Qualcomm illegally double-dips by selling chipsets that allow mobile telephones to connect to cellular networks and then separately licensing (but never to competitors) the purportedly necessary intellectual property. By tying together the markets for chipsets and licenses to technology in cellular standards, Qualcomm illegally enhances and strengthens its monopoly in each market and eliminates competition. Then, Qualcomm leverages its market power to extract exorbitant royalties, later agreeing to reduce those somewhat only in exchange for additional anticompetitive advantages and restrictions on challenging Qualcomm's power, further solidifying its stranglehold on the industry. All of this has been forced on Apple because the iPhone and the iPad® have required Qualcomm chips.

9. Qualcomm's abusive practices have particularly harmed Apple, the prime innovator in the mobile device industry. In recent licensing discussions with Apple, Qualcomm has asserted that it has a "good faith belief" that Apple's

products—which now use both Qualcomm and Intel chipsets to connect to cellular networks—infringe many Qualcomm patents simply because Qualcomm "holds a great many patents that are essential to cellular standards implemented by Apple products," including the 3G/UMTS and/or 4G/LTE standards.

10. Qualcomm has recently demonstrated that it will file lawsuits following threats to assert its patents. The asserted patents in this case include patents that are U.S. counterparts of Chinese patents that Qualcomm has asserted in litigation against Meizu Technology Co., Ltd. ("Meizu") and that Qualcomm has declared as essential to the 3G/UMTS and/or 4G/LTE standard. These patents are not, in fact, essential to 3G/UMTS or 4G/LTE and are not infringed by Apple. Moreover, if any of these patents were essential, Qualcomm's licensing demands violate patent law and its FRAND obligations.

11. For years, Qualcomm has abused its business relationships with Apple and blocked competitors from selling chipsets. Qualcomm's recent effort to cover its tracks—by punishing Apple for providing truthful testimony at the request of government regulators—underscores the lengths to which Qualcomm will go to protect its extortion scheme. Accordingly, Apple seeks this Court's intervention, bringing breach of contract claims, patent claims, and antitrust claims, as the basis for declaratory relief, injunctive relief, and damages.

PARTIES

12. Apple is a California corporation having its principal place of business at 1 Infinite Loop, Cupertino, California 95014. Apple designs, manufactures, and markets mobile communication and media devices, personal computers, and portable music players, as well as related software, accessories, and content.

13. Qualcomm is a Delaware corporation having its principal place of business at 5775 Morehouse Drive, San Diego, California 92121. Qualcomm is a global semiconductor company that designs and markets wireless

telecommunications products and services.

14. Qualcomm has offices and employees in this District and regularly conducts business in this District.

15. Qualcomm includes Qualcomm Technology Licensing ("QTL"); Qualcomm Technologies Inc. ("QTI"); and Qualcomm CDMA Technologies ("QCT"). QTI is wholly owned by Qualcomm, and QCT is operated by QTI and its subsidiaries.

JURISDICTION

16. Apple brings this action for damages, declaratory relief, costs of suit, and reasonable attorneys' fees arising under, inter alia, the patent laws of the United States, 35 U.S.C. § 1 et seq.; Section 2 of the Sherman Antitrust Act, 15 U.S.C. § 2; and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202. Accordingly, this Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 (federal question), 1337 (commerce and antitrust regulation), and 1338(a) (patents).

17. Apple has standing to bring this action under Section 4 of the Clayton Act, 15 U.S.C. § 15.

18. This Court has subject matter jurisdiction over Apple's pendent state law claims pursuant to 28 U.S.C. § 1367. Each of Apple's state law claims arises out of the same factual nucleus as its federal law claims.

19. This Court has personal jurisdiction over Qualcomm because it has its principal place of business in this District, and because Qualcomm's actions cause harm in this District. Further, Qualcomm's wrongful conduct, in the form of unreasonable demands made during licensing discussions with Apple (e.g., in-person licensing meetings with Apple), has been purposefully conducted within the District (e.g., at Qualcomm's offices in San Diego, California), and Apple's injuries relate to such conduct in the District.

20. The facts in this Complaint support jurisdiction in this case.

VENUE

21. Venue is proper within this District under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) and Sections 4 and 12 of the Clayton Act, 15 U.S.C. §§ 15, 22, and 28.

22. The facts in this Complaint support venue in this case.

23. Venue is also proper because the parties' Business Cooperation and Patent Agreement contains a forum selection clause requiring Apple to file litigation regarding the agreement's terms in state or federal court in San Diego County, California. [**Exhibit A**, BCPA attachment 2.]

FACTUAL ALLEGATIONS

Apple's Revolutionary Products

24. When Apple unveiled the iPhone in 2007, it revolutionized the telecommunications industry and completely redefined what users can do on their mobile phones. The iPhone combined three products—a revolutionary mobile phone, a widescreen iPod® music player, and a breakthrough computer/Internet communications device—into one small and lightweight handheld device with a large, color multi-touch display; a distinctive user interface; and a sophisticated computing platform for mobile apps. Apple patented many of these innovations.

25. In 2010, Apple created and defined an entirely new category of devices with the revolutionary iPad. The iPad connects users with their apps and content in a much more intimate, intuitive, and fun way. The iPad is an elegantly designed computer tablet with a color multi-touch screen, a user interface akin to the iPhone, and robust functionality that spans both mobile computing and media storage and playback. As a result of its innovative technology and distinctive design, the iPad achieved instant success and continues to hold a considerable share of the U.S. tablet market.

26. Apple's iPhone and iPad products are the result of Apple's own creative

achievement, technical innovation, differentiated technology, and astute business judgment.

27. Among many other functions, both the iPhone and certain models of the iPad can send and receive, over cellular networks, telephone calls and/or other voice and video communications, text messages, and Internet data. Except when connected to a Wi-Fi network, a mobile wireless device like an iPhone or iPad cannot be used for communication without a baseband processor chipset, a component that, among other functions, acts as a small wireless radio and "plugs in" to a standardized telecommunications network. Such networks are created and maintained by carrier companies, including, for example, AT&T, Verizon, Sprint, and T-Mobile.

28. The baseband processor chipset is just one component out of thousands of components and technologies contained in the Apple iPhone and iPad. Apple, sometimes through third-parties, purchases components and technologies from third-parties, such as Qualcomm.

Standards and Their Economic Effects

29. For a cellular network to operate—and for each component to work with the other components, regardless of which company made each part—carriers, base station manufacturers, mobile wireless device manufacturers, and baseband processor chipset manufacturers must agree to follow a common set of standards, which control how each part of a network communicates with the other parts. Thus, for decades, cellular service providers, baseband processor chipset manufacturers, and wireless device manufacturers have formed and joined standard setting organization ("SSOs"), which create and distribute common standards for all members to follow.

30. Standards are absolutely critical in creating a common technology platform because they allow different network components to be delivered by

multiple vendors, promote interoperability of products, and incentivize investments in infrastructure. The net effect of standards is to increase competition, innovation, product quality, and consumer choice.

31. A system of uniform standards requires companies and consumers to make certain tradeoffs. For example, a company implementing standards in a product must use certain mandated technologies, even where viable, perhaps even superior, alternatives exist. Once a standard is adopted, participants begin to make investments tied to the implementation of the standard—such as engineering compliant parts, building compliant cellular towers, and designing handsets around particular capabilities. Because these participants may face substantial switching costs in abandoning initial designs and substituting a different technology, an entire industry will become "locked in" to a standard. Similarly, once a standard is adopted and implemented, a company cannot substitute alternative technologies in its products because those products will no longer work with any established network. For this reason, standard-setting is accompanied by safeguards to prevent the abuse of monopoly power, discussed further below.

32. Where standardized technologies are covered by patents, called standard-essential patents ("SEPs"), companies that choose to implement a standard are often required to practice those patents. Without safeguards, patent holders could demand inflated or discriminatory royalties from product companies who have no choice but to use the technology, threaten to block a targeted company from implementing or practicing the standard, and demand and obtain royalty payments based not on the market value of their patents over alternative technologies, but on the costs and impossibility of switching away from standardized technology. This abuse is called "patent hold-up" and occurs "when the holder of a standard-essential patent ('SEP') demands excessive royalties after companies are locked into using a standard." Ericsson, Inc. v. D-Link Sys., Inc.,

773 F.3d 1201, 1209 (Fed. Cir. 2014); see also U.S. Dep't of Justice & U.S. Dep't of Commerce, Patent & Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments (Jan. 8, 2013), https://www.justice.gov/sites/default/files/atr/legacy/2014/09/18/290994.pdf. Higher royalties eliminate choice and may be passed on in the form of higher prices, harming consumers. The threat of hold-up also tends to reduce the value of standard setting, leading firms to rely less on the standard-setting process and depriving consumers of the substantial procompetitive benefits of standard setting.

33. Patent "hold-up" can be exacerbated by "over-declaration" of patents as essential to a standard. Patent owners, like Qualcomm, can claim that their patents are SEPs without having to prove that they are essential. Many SSOs expressly declare that they do not test declarations of essentiality or validity for accuracy. For example, one widely recognized SSO, the European Telecommunications Standards Institute ("ETSI"), affirmatively states that it has "No involvement" in "the assessment of the validity and essentiality of patents declared as SEPs." [Legal Considerations, ETSI Seminar 2014, http://www.etsi.org/images/files/ETSISeminar/ETSI%20Seminar%206-1%20IPR.pdf.] Thus, a product company like Apple can be faced with claims of patent infringement based on nothing more than the unilateral assertion by a company like Qualcomm that its patents are essential.

34. The term essential need not mean the patent is essential for a required implementation of a standard; it might mean the patent is essential to an optional implementation. Manufacturers can choose one of the options without infringing patents that are essential for implementing another option. See Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217, at *10, *20 (W.D. Wash. Apr. 25, 2013) ("[A] specific SEP may contribute greatly to an optional portion of a given standard, but if that portion is not used by the implementer, the specific SEP

may have little value to the implementer.").

35. The aforementioned economic problems are compounded by "royalty stacking," the "payment of excessive royalties to many different holders of SEPs." Microsoft, 2013 WL 2111217, at *11. Like many technologies, the telecommunications standards described herein are complex, and many different entities claim to have patents that read on some aspect of the standard.

The FRAND Bargain

36. To address the economic effects of standardization that would artificially inflate royalties for SEPs, SSOs require participants claiming to own SEPs to identify and disclose those patents publicly and to promise to offer licenses for those patents to all implementers of the standard either royalty-free or on FRAND terms. If a patent holder does not choose to make this promise, SSOs generally design the standard without using the patented technology. Qualcomm's failure to stick to its end of the FRAND bargain is an essential element of its scheme of relentless extortion. Qualcomm induced SSOs to adopt Qualcomm technology within the standard and then knowingly repudiated its obligation to license its SEPs on reasonable terms.

37. FRAND royalties must start with the proper royalty base and a proper royalty rate, as required by the patent laws, but also must meet additional criteria designed to prevent misuse of the monopoly power conferred by adoption of a standard. In particular, FRAND royalties must be limited by the actual technical contribution of the patented technology to the standard, rather than (a) the "lock-in" value that arises from standardization of technologies, i.e., the value gained simply because companies are forced to use the technology mandated in the standard, (b) the value of all the technologies incorporated in an entire standard, or (c) the competing value of the many technologies, and many other standards that make up the actual device.

38. A SEP holder that makes a FRAND commitment also promises to license its SEPs to anyone willing to accept a license, i.e., a "willing licensee," and thus relinquishes its right to exclude a willing licensee from the standards-based technologies. Such a commitment is an important check on the patent holder's power to use SEPs to "hold up" implementers of the standard by refusing to license competitors or the customers of competitors, or by licensing competitors or their customers only on discriminatory terms that undermine competition among implementers of the standard. Without the FRAND commitment, SEP holders would take an easy path to monopoly profits because the standard requires use of the patented technology.

39. The FRAND promise is a critical tool in preventing monopoly hold-up and ensuring that the standard remains accessible to all who wish to implement it. See Microsoft, 2013 WL 2111217, at *11 (noting that SSOs combat hold-up through the use of the FRAND commitment).

40. FRAND obligations are more than a matter of a private contract between owners of technology, on the one hand, and SSOs and their other members (and implementers of the standard as intended third-party beneficiaries), on the other. Instead, they are a core precondition for antitrust tolerance of the industry collaboration on which standard-setting depends.

41. As the Third Circuit Court of Appeals has found:

> a standard, by definition, eliminates alternative technologies. When a patented technology is incorporated in a standard, adoption of the standard eliminates alternatives to the patented technology. Although a patent confers a lawful monopoly over the claimed invention, its value is limited when alternative technologies exist. That value becomes significantly enhanced, however, after the patent is incorporated in a standard. Firms may become locked in to a standard requiring the use of a competitor's patented technology. The patent holder's IPRs, if unconstrained, may permit it to demand supracompetitive royalties. It is in such circumstances that measures such as FRAND commitments become important safeguards against monopoly power.

Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 314 (3d Cir. 2007) (citations omitted).

42. Violation of the FRAND bargain can take several forms, including demanding unreasonable royalties; applying royalties discriminatorily (for example, charging different licensees different amounts or imposing differing conditions on different licensees, or conditioning royalties on licensees' agreement to advantage the patent owner's products); and asserting that patents are essential to the standard when in fact they are not. Qualcomm is guilty of all three.

ETSI and Qualcomm's Contractual FRAND Obligations

43. Qualcomm and Apple are both members of ETSI, an SSO based in Sofia Antipolis, France, which includes more than 800 members from countries across five continents. ETSI produces globally accepted standards for the telecommunications industry. For example, ETSI created or helped to create numerous telecommunication standards, including the 2G/GSM, 3G/UMTS, and 4G/LTE cellular communication standards, described further below.

44. Like other SSOs, ETSI requires participants to commit to abide by its Intellectual Property Rights ("IPR") Policy, which sets forth the rights and obligations of its members. Pursuant to the IPR Policy, members are required to disclose standard-essential and potentially standard-essential patents and patent applications in a timely fashion. [ETSI Rules of Procedure, Annex 6, Clause 4, http://www.etsi.org/website/document/legal/etsi_ipr-policy.pdf.]

45. The IPR Policy further requires that SEP owners submit a written commitment that they are prepared to grant irrevocable licenses on FRAND terms. If no FRAND commitment is made, the IPR Policy provides for ETSI to investigate alternative technology options for the standard to avoid the patent in question. [Id. at Clause 6.]

46. According to ETSI's self-reporting portal, Qualcomm has declared over

30,000 global assets to be "ESSENTIAL IPR." No objective party has tested the actual essentiality or validity of these assets.

47. Qualcomm has submitted IPR undertakings to ETSI with regard to each of the patents at issue in this matter. By submitting those declarations, Qualcomm promised that "[t]o the extent that the IPR(s) . . . are or become, and remain ESSENTIAL in respect of the ETSI Work Item, STANDARD and/or TECHNICAL SPECIFICATION," Qualcomm is "prepared to grant irrevocable licenses under this/these IPR(s) on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy." [Id. at App'x A.]

48. Qualcomm, therefore, is contractually obligated to grant licenses on FRAND terms to these patents to Apple and other manufacturers of products that, through the baseband processor chipsets they use, conform to ETSI standards, as well as to third-party suppliers of baseband processor chipsets. Qualcomm made similar promises to other SSOs as well.

49. Because Apple is a third party that wishes, through the baseband processor chipsets it uses, to implement 3G/UMTS and 4G/LTE standard-compliant technology in the products it sells, Apple is a third-party beneficiary of the contracts between Qualcomm and ETSI.

50. Apple relied on Qualcomm's promises to ETSI. Specifically, Apple and other wireless device manufacturers made a conscious choice to develop and sell products compatible with 3G/UMTS and 4G/LTE, relying on Qualcomm's promise that any third-party supplier of baseband processor chipsets or products using them could avoid patent litigation and obtain a license to any patents that Qualcomm has declared essential to the 3G/UMTS and 4G/LTE standards.

51. Qualcomm's breach of its FRAND commitments, described in significant detail below, is a foundation of its scheme to acquire and abuse monopoly power in the cellular industry. By refusing to license its SEPs to

competing chipset manufacturers, and by refusing to sell its chipsets to customers unless they first license Qualcomm's SEPs, Qualcomm forced purchasers of its chipsets to take a license to its SEPs at extortion-level royalties. By threatening "disloyal" chipset customers with even less-favorable royalties and license terms if they purchased chipsets from Qualcomm's competitors, discriminating between potential licensees by refusing to license its SEPs to competitors, and offering only "rebates" rather than a direct FRAND license, Qualcomm excluded competition in the chipset market. And by foreclosing competitors from dealing with Apple, a key purchaser of chipsets, Qualcomm facilitated the marginalization and exit of many of those competitors, enhancing its own monopoly power.

Qualcomm's Dominant Market Position and Cellular Standards

52. Wireless standards have evolved in distinct generations, as consumers demanded more features. The earliest cellular telephones and networks used analog technology which allowed only voice transmission and very slow data transmission. This first-generation technology was characterized by significant capacity limitations, poor data transfer, and low security.

53. Second generation ("2G") cellular technology implemented, among others, the "Global System for Mobile Communications" ("GSM") standard and the "Code Division Multiple Access" ("CDMA") standard. 2G technology provided improved voice and data capacity, supported limited additional functions such as text and multimedia messages, and offered greater privacy and security at lower prices. Most cellular telephones today use (at a minimum) 2G technology and standards, with GSM being the most widely used 2G technology.

54. Third generation ("3G") cellular technology included the "Universal Mobile Telecommunications Service" ("UMTS") standard, which used "Wideband Code Division Multiple Access" ("WCDMA") technology allowing for even further increased data speed and capacity. 2G and 3G technologies continue to be

simultaneously deployed in products, and devices with only 3G/UMTS/WCDMA technology are rare. Instead, 3G/UMTS/WCDMA products function in combination with 2G technology.

55. LTE, sometimes referred to as a 4G cellular standard, is an upgrade to 3G/UTMS/WCDMA, providing an enhanced radio interface and all-IP networking technology. The LTE standard has continually advanced, and progressive updates to the LTE standard have specified higher download speeds, carrier aggregation, and advanced power-saving features, among other functions.

56. 3G and 4G technology are often used in tandem through "multimode" chipsets that are compatible with both sets of standards.

57. Baseband processor chipsets implement one or more of these standards.

58. Each of these major cellular standards has carrier networks that employ them. One family of standards, used by carriers in the United States such as AT&T and T-Mobile, employs the GSM standard for 2G communications and the complementary UMTS standard for 3G communications. A rival family of standards, used by U.S. carriers including Verizon and Sprint, employs the CDMA standard and related technologies, e.g., CDMA2000. The technologies in these two standards families each have advantages and disadvantages. Both families, however, have adopted the LTE standard, while requiring backwards compatibility to their respective 2G and 3G technologies.

59. Mobile devices that are configured for a particular carrier, such as AT&T or Verizon, are generally locked in to that carrier's network. Cellular network standards also may vary based on region and country.

60. Chipsets designed for a particular wireless device must conform to the standards technology chosen for that network. For example, CDMA networks demand chipsets that conform to the CDMA standards, and only LTE-enabled chipsets can be used in devices designed for LTE networks. As a result, chipsets

that comply with a given standard are not substitutes for, and have different price and demand characteristics from, chipsets that comply with other standards. Downstream consumers purchase cell phones that include chipsets configured to operate using the standards chosen for a particular network, inextricably tying those consumers to that standard.

61. Qualcomm has for many years had monopoly power in the sale of baseband processor chipsets that implement several of these various cellular standards and generations.

62. First, Qualcomm has monopoly power in the supply of chipsets that support CDMA, on which devices sold by Verizon and Sprint continue to depend. OEMs seeking to sell devices on CDMA networks must use CDMA chipsets, which means that these OEMs depend on access to Qualcomm's chipsets. Qualcomm has had a share of over 80 percent of the CDMA chipset market for many years, despite the attempts of competitors such as Intel, VIA Telecom, Texas Instruments, and Eonex to enter and gain a foothold. Since 2011, when Apple introduced the first CDMA version of its products, Qualcomm has charged Apple a monopolistic premium for access to CDMA chipsets that are in all other respects identical to chipsets sold to Apple without CDMA functionality enabled. Qualcomm prices its CDMA chipsets without regard to competitive alternatives. Qualcomm has used its monopoly power in CDMA chipsets to obtain anticompetitive license and chipset supply terms from Apple.

63. Second, Qualcomm also has monopoly power in the market for premium LTE-enabled chipsets, particularly when coupled with CDMA functionality. Premium LTE chipsets, typically used in flagship smartphones, are sold by Qualcomm at different, and higher, prices. For device manufacturers seeking to sell flagship smartphones with advanced features for use on networks requiring LTE chipsets, there is no reasonable substitute for these chipsets.

Qualcomm recognizes in its 2016 Annual Report, for example, market segments for "premium-tier integrated circuit products" and "premium-tier smartphones." Qualcomm has for many years maintained a dominant share of premium LTE chipsets sold in the relevant market of 80 percent or more. Qualcomm has used its monopoly power in premium LTE chipsets to obtain anticompetitive license and chipset supply terms from Apple.

64. Qualcomm's dominance in all of the relevant product markets is protected by substantial barriers to entry and expansion of new competitors. These barriers include, but are not limited to: (a) the time and cost of product development and network certification, including necessary economies of scale, scope, and learning by doing; (b) the intellectual property rights of Qualcomm and others; (c) establishment of product reputation and compatibility; and (d) Qualcomm's exclusionary conduct.

65. The development of a commercially viable chipset takes years of complex engineering work and an R&D investment of hundreds of millions, and perhaps billions, of dollars. These barriers to entry increase as a function of the processing power and functionality of a particular chipset, and as such are especially pronounced in the premium LTE chipset market. Obtaining the certification of network operators for the use of baseband processor chipsets sold for use on their network is another barrier to entry, often involving significant expenditures of time and money.

66. Qualcomm has declared thousands of patents as essential to the CDMA, UMTS, and LTE standards. Moreover, Qualcomm, while not asserting essentiality to the implementation of these standards, has asserted additional patents that it says cover specific implementations of these standards. Navigating this thicket of patents increases the costs and risks associated with new entry into the chipset market, foreclosing the field for new entrants.

67. Chipset purchasers generally require that suppliers be capable of reliably achieving roadmap performance milestones and have a good working relationship with network operators, ensuring these suppliers can obtain all of the required certifications from operators for their chipsets. Sourcing from a credible chipset supplier ensures that chipset purchasers will meet their product launch dates and will have uninterrupted and reliable supply of chipsets.

68. Qualcomm's unfair and exclusionary conduct maintained and strengthened its monopoly position in the relevant product markets by depriving rival chipset manufacturers of necessary economies of scale, scope, and essential experience.

69. In 2006, there were multiple vendors of baseband chipsets, including Broadcom, Ericsson, Renesas, and Texas Instruments. Today, Intel is Qualcomm's only competitor in the market for premium LTE chipsets, and Qualcomm has no competition at all in the market for premium LTE chipsets with CDMA functionality. Not coincidentally, Intel has been the target of Qualcomm's exclusionary efforts to force Apple to refrain from introducing Intel chipsets in Apple products.

70. Qualcomm's monopoly power is also shown by its ability to repeatedly coerce Apple into undesirable, one-sided, and unreasonable contract terms, terms that are unprecedented in Apple's experience. At various times, Qualcomm has refused to guarantee Apple's supply of chipsets, arbitrarily limited its liability for failure to supply chipsets, refused to offer industry-standard indemnity and warranty terms, forced Apple to refrain from challenging Qualcomm's patents, and forced Apple to refrain from asserting its own patents against Qualcomm or Qualcomm licensees, as well as other terms. Qualcomm expropriates the fruits of Apple's investments in customizing Qualcomm's chipsets for use in Apple products, and uses Apple's innovations to sell Qualcomm chipsets to Apple's competitors. With

respect to each of these contract terms, Qualcomm's potential competitors have offered or would offer better contract terms to Apple, but Apple has often been unable to accept those terms due to Qualcomm's monopoly power.

Qualcomm's Secret Manufacturer License Agreements

71. Given Qualcomm's foreclosure of competition and the resulting absence of choice, Apple has been forced to maintain a commercial relationship with Qualcomm over many generations of Apple's iPhone and iPad product lines. The foundation of this commercial relationship is Qualcomm's supply of chipsets and licenses for use in Apple-designed iPhones and iPads.

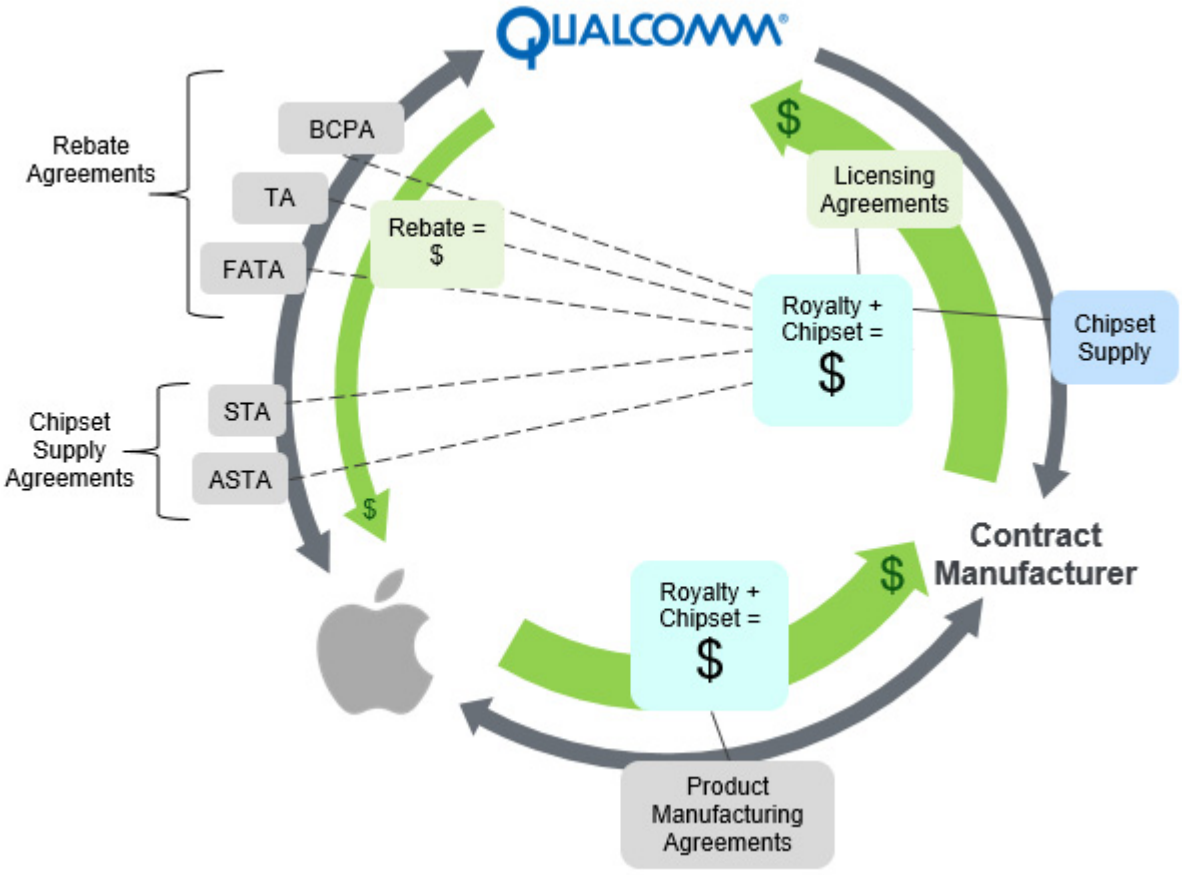
72. Apple has been indirectly paying Qualcomm licensing fees since 2007, when it released the iPhone. Apple became even more reliant on Qualcomm in 2011 due to Apple's desire to release an iPhone that could connect to CDMA networks, such as Verizon's. For many years, Qualcomm ensured that it was the only possible supplier of CDMA chipsets, and it remains so today for the chipsets used in Apple's flagship iPhone product line. As a monopoly supplier of an essential input, Qualcomm had the power to constrict and disrupt chipset supply, which (coupled with Qualcomm's refusal to enter into industry-standard supply agreements that would have guaranteed supply to Apple, absent unusual or unforeseen circumstances) would have been disastrous to Apple's business.

73. In 2007, Apple released the first iPhone using Intel (then Infineon) baseband processor chipsets. Qualcomm required licensing fees for using these chipsets. Rather than grant Apple a direct license on FRAND terms, Qualcomm has instead entered into confidential licenses with specific Apple contract manufacturers ("CMs"), the third-party manufacturers who make and assemble Apple products. The CMs pay the exorbitant royalties Qualcomm demands and pass the costs along to Apple in full.

74. Qualcomm uses these secret licenses to conceal its anticompetitive

licensing practices. Here is how it works: Qualcomm knows that Apple is shouldering the entire royalty burden, but by licensing the CMs and not Apple, Qualcomm can demand higher royalties because the CMs have no incentive to negotiate. In fact, the CMs have agreed to license Qualcomm's SEPs on non-FRAND terms, locking Apple into outrageous royalties. And the agreements are confidential; Apple cannot even see or review them. The CMs have expressed willingness to show Apple their Qualcomm licenses, subject to Qualcomm's consent, but Qualcomm has refused to give that consent.

75. The following diagram illustrates the complex web of contracts, some of them secret contracts, that underlie Qualcomm's scheme of relentless extortion and govern the two companies' business relationship:



76. Because Qualcomm conceals the CM licenses from Apple, it is not clear what patents Apple is paying for its CMs to license. For years, Qualcomm

assured Apple that virtually all of the Qualcomm patent portfolio was effectively licensed to Apple through these CM agreements, but Qualcomm recently has suggested that these licenses are more limited such that Apple's iPhone and iPad products are not fully covered. Thus, Apple has been unable to confirm the present scope of its license rights to Qualcomm patents through Qualcomm's various agreements with Apple's CMs, including the extent to which Apple's products are licensed and the Qualcomm patents that are licensed.

77. In addition, by withholding the scope, terms, and value of the Qualcomm licenses with Apple's CMs, Qualcomm has deliberately deprived Apple of any assurance that renewing the indirect licensing framework with Apple's CMs would be consistent with Qualcomm's obligations to grant licenses to SEPs on FRAND terms.

78. Apple and Qualcomm have periodically discussed a direct license, but Qualcomm's direct license proposals have not complied with its FRAND obligations. It likely follows that Qualcomm's concealment of its indirect licensing framework is further evidence that the current terms are not consistent with Qualcomm's FRAND obligations.

79. Qualcomm's exorbitant royalties are price gouging, plain and simple: between [redacted] per device, [redacted]. In 2016, this was an order of magnitude greater than the royalties that Apple pays to any other patent holder, and indeed is more than Apple pays to all other cellular patent holders combined.

80. By way of illustration, in 2016, Apple's four largest direct licenses for cellular-related SEPs, excluding Qualcomm, were with [redacted], each of which has made claims similar to Qualcomm about the strength and value of their respective portfolios of 3G and 4G cellular SEPs. Together, these four licensors represent [redacted] of all 4G cellular SEP declarations, significantly above the 23.5% self-declared by Qualcomm, and in fiscal 2016

accounted for [redacted].

81. Despite having declared a significantly smaller number of 4G cellular SEPs, Qualcomm is collecting [redacted] than the royalties paid to the four other SEP holders combined. Moreover, Qualcomm currently is demanding Apple pay [redacted] that amount starting January 1, 2017.[1]

Qualcomm "Double-Dips" Royalties and Chipset Sales

82. For the entire patent licensing world outside of Qualcomm, a customer that purchases a patented product automatically receives a license by operation of law to the seller's patents pursuant to the "first sale," or patent exhaustion, doctrine. Qualcomm, however, negates any first sale doctrine rights by insisting that its customers, such as Apple's CMs, pay for a separate patent license: what the Federal Trade Commission ("FTC"), in its January 17, 2017 complaint against Qualcomm, called Qualcomm's "no license-no chips" policy.

83. To put this into perspective, a baseband processor chipset sells for around $10 to $20. Patent royalties typically are set as a fraction of a percent of the patented item (e.g., the smallest salable patent practicing unit); for FRAND encumbered patents, royalties typically follow the same approach and are a fraction of a percent of the smallest salable patent practicing unit (here, the baseband processor chipset). Qualcomm's royalty demands approach and in some cases surpass [redacted] of the baseband processor sales price.

84. Therefore, Apple, through its CMs, buys Qualcomm components and

[1] These multiples actually underestimate the excessiveness of Qualcomm's licensing demands, in part because [redacted]

also, indirectly, pays Qualcomm for a separate license for the intellectual property embodied in those components.

85. Qualcomm is the only Apple supplier that both sells components and also requires a separate license to those same components.

86. By requiring Apple's CMs to take a separate patent license for the same components that they purchase, Qualcomm is double-dipping.

87. This double-dipping of royalty fees on top of chipset sales is prohibited by the patent exhaustion doctrine. Under that doctrine, the "authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control postsale use of the article." Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 638 (2008).

88. The FTC recently alleged, after a two-year investigation of Qualcomm, that Qualcomm's "no license-no chips" policy was an aberrant departure from prevailing patent licensing practices. According to the FTC, "Qualcomm is unique in requiring an OEM, as a condition of sales, to secure a separate patent license requiring royalty payments for handsets that use a competitor's components." Complaint for Equitable Relief ("FTC Compl.") ¶ 68, FTC v. Qualcomm Inc., No. 5:17-cv-00220 (N.D. Cal. Jan. 17, 2017), ECF. No. 1.

89. Qualcomm has attempted to evade the patent exhaustion doctrine by selling baseband processor chipsets to Apple's CMs through QTC, which is operated by QTI, which is in turn a wholly owned subsidiary of Qualcomm.

90. Qualcomm is playing a shell game to get around the law. In its press release announcing the corporate restructuring that enables this evasion, Qualcomm admitted that the change in corporate structure would not result in "any change to the way in which it defines its operating segments for financial reporting purposes." [Press Release, Qualcomm Implements New Corporate Structure, Qualcomm (Oct. 1, 2012), https://www.qualcomm.com/news/releases/2012/10/01/qualcomm-

implements-new-corporate-structure.]

Qualcomm Gouges Apple

91. Since 2006, Apple has looked for ways to reduce its exorbitant royalty burden. And after this date, Apple attempted to negotiate a lower royalty rate in the form of a worldwide FRAND license directly from Qualcomm that would obviate the need for this "pass-through" license structure, but Qualcomm has never made a worldwide offer on FRAND terms for a direct license to Apple.

92. Instead, Apple has had no choice but to settle on a model whereby Qualcomm remits payments back to Apple in exchange for additional promises, terms, and conditions from Apple. In this way, Qualcomm conditioned a degree of royalty relief, offsetting the royalty burden that Qualcomm imposes on Apple's CMs and that the CMs pass on to Apple, on Apple's acceptance of exclusionary and anticompetitive contract terms that cement Qualcomm's monopoly power in baseband processor chipsets. In other words, Qualcomm used its anticompetitive leverage to gain even greater anticompetitive leverage and used unreasonable terms to gain even more unreasonable terms.

93. Specifically, since 2011, Qualcomm has conditioned billions of dollars in rebates on exclusivity or de facto exclusivity from Apple. The monopoly power that Qualcomm enjoys today in the market for premium LTE chipsets is directly related to Qualcomm's foreclosure of Apple's business to actual and potential competitors in the premium LTE chipset market.

94. It was only with the iPhone 7—released in September 2016—that Apple was able to use a competitor's chipsets (Intel's) as well as Qualcomm chipsets in its cellular-enabled devices. This choice to introduce competition cost Apple [redacted] in exclusivity-based royalty relief.

95. For several years, Qualcomm's actions deterred Apple from switching to Intel's or other potential competitors' chipsets, substantially diminishing

competition in the interim. Even today, Qualcomm is actively engaging with network carriers in the United States, attempting to persuade them not to support or sell Apple devices with Intel chipsets.

96. Although Qualcomm refused to characterize its payments to Apple as "rebates" on the license fee, and insisted on titling these payments with descriptions like [redacted] and [redacted] these titles were window-dressing. Apple was under little to no obligation to use many of these funds for any particular purpose. Instead, the sole purpose of these payments was to reduce Apple's royalty burden in exchange for exclusivity.

97. Qualcomm has refused to call these payments "rebates" on the license fee because it knows that the license fee it charges the CMs does not comply with its promise to license its patents on FRAND terms.

98. These rebates are provided for by contracts between the parties. Through these contracts, Qualcomm extracted additional terms and conditions from Apple.

99. The parties' Business Cooperation and Patent Agreement ("BCPA"), for example, expressly calculates a series of quarterly payments to Apple ("BCP Payments"), as a cap on the royalties that Apple pays to Qualcomm, setting the amount of the payment at a lump sum that effectively reduced Apple's per-device royalty payment to [redacted] per iPhone and [redacted] per iPad. [**Exhibit A**, BCPA §§ 7–8.]

100. The rebates reduced, but by no means eliminated, Apple's overpayment of royalties to Qualcomm. Taken together, these rebates reduced the effective royalty burden on Apple to around [redacted] per iPhone and iPad through 2016. This represents an amount that is still significantly larger than the royalty Apple pays for [redacted]—licenses that collectively represent a far greater percentage of the patents declared as essential to the cellular standard. Under every conceivable test, this royalty fails to meet the definition of FRAND. It

unjustifiably enriches Qualcomm at the expense of Apple and Apple's customers.

101. In general, the BCPA, effective January 1, 2013, provided certain incentives to Apple in exchange for specifically defined business cooperation, and provided Qualcomm certain rights to Apple's patents. The BCPA expired on December 31, 2016, and is attached hereto as **Exhibit A**.

102. Under the BCPA, Apple agreed to cooperate with Qualcomm in two limited ways: (1) Apple agreed to use certain technological standards (CDMA, CDMA2000, WCDMA, and FYX) in the iPhone and iPad, and (2) the parties agreed to meet semiannually to discuss new technologies that may be mutually beneficial. [**Exhibit A,** BCPA § 3.] The parties did not agree to any broader definition of cooperation.

103. In addition, in exchange for these BCP Payments, Qualcomm severely restricted Apple's ability to sue or induce certain kinds of lawsuits or enforcement actions against Qualcomm. Specifically, Qualcomm required Apple to agree that its obligations to pay applied

[redacted]

[**Exhibit A**, BCPA § 7, second paragraph.]

104. Qualcomm insisted on these restrictions because it knows its business model is vulnerable to legal challenges based on, among other claims, lack of FRAND terms and patent exhaustion.

105. Apple objected to this term during negotiations. At the time the contract was entered into, Qualcomm had leverage over Apple because of Qualcomm's

market power in chipsets and its ability to disrupt Apple's supply of chipsets, thus preventing Apple from challenging Qualcomm on these grounds in any event.

106. Despite the BCPA's restrictions, the contract recognized Apple's responsibility to respond freely to a request or inquiry from a governmental entity. That carve-out provision states:

[**Exhibit A**, BCPA § 7, third paragraph.]

107. Qualcomm has since acknowledged that it was not the intent of the BCPA to "dissuade Apple from providing truthful, factual responses to inquiries from government agencies or to interfere with any government agency's gathering of information."

108. Among other agreements, Qualcomm and Apple have also entered into the following contracts:

109. The 2007 Marketing Incentive Agreement ("MIA") capped Apple's royalties for UMTS chipsets, payable at that time on purchases of Infineon's chipsets. In exchange, Apple was obliged to refrain from marketing wireless devices implementing a competing wireless communication standard, WiMAX. Qualcomm forced Apple to renounce WiMAX just as WiMAX was gaining traction in the marketplace. Qualcomm acted to eliminate the competitive threat posed by WiMAX by ensuring that Apple would not market wireless devices with WiMAX

technology. The MIA is attached hereto as **Exhibit B**.

110. The 2009 Strategic Terms Agreement ("STA") addresses the process by which Qualcomm supplies chipsets and associated software to Apple. It also restricts Apple's ability to sue Qualcomm for patent infringement concerning Qualcomm chipsets. While Apple generally negotiates firm supply commitments with its component vendors, Qualcomm refused to provide Apple such a commitment, instead arbitrarily capping its liability for failure to supply, and reserving for itself the ability to terminate its obligation to supply chipsets to Apple's CMs. Qualcomm's unilateral right to terminate supply of chipsets to Apple's CMs was retained in the Amended and Restated Strategic Terms Agreement ("ASTA"), effective February 28, 2013. The STA and the ASTA are attached hereto as **Exhibits C and D**, respectively.

111. The 2011 Transition Agreement ("TA") provided for the extension of the royalty relief embodied in the MIA to CDMA-compliant iPhones, contingent upon Apple's agreement to use Qualcomm's baseband processor chipsets exclusively. This royalty relief was disguised by Qualcomm as a marketing payment paid pursuant to the TA. As part of that agreement, Apple could not initiate any action or litigation against Qualcomm for intellectual-property infringement. The TA is attached hereto as **Exhibit E**.

112. Under the First Amendment to Transition Agreement ("FATA"), effective January 1, 2013, Qualcomm was obliged to make various payments to Apple in exchange for Apple's exclusive use of Qualcomm baseband processor chipsets. As with the TA, a portion of the payments made by Qualcomm pursuant to that FATA were understood by the parties to be a form of royalty relief, conditioned on Apple's agreement to deal with Qualcomm exclusively. The FATA is attached hereto as **Exhibit F**.

113. None of the above agreements directly addresses a license to the

parties' patents that have been declared essential to any standard.

Apple and Qualcomm's Licensing Discussions

114. Discussions dating back to at least November 2014 between Apple and Qualcomm about a direct license for certain patents were conducted with the knowledge that certain of the agreements governing the parties' commercial relationship, such as the TA and BCPA, were set to expire at the end of 2016.

115. In 2015, Qualcomm made an "offer" to Apple to license Qualcomm's Chinese 3G/4G declared-essential patents on terms purportedly "consistent" with those that resolved an inquiry by Chinese regulators into Qualcomm's licensing practices, called the "National Development and Reform Commission resolution" ("NDRC resolution" or "rectification plan" for short). Apple immediately rejected the proposal because it was not FRAND, was excessive as compared to other licenses to cellular SEPs Apple negotiated at arm's length, and was of limited value to resolving the parties' worldwide licensing dispute.

116. On February 5, 2016, Apple reiterated its interest in exploring a direct license to certain patents in Qualcomm's patent portfolio. During subsequent discussions, Qualcomm asserted that it had a "good-faith belief" that Apple's products infringe many Qualcomm patents because "Apple products have been certified as compliant with CDMA/WCDMA (3G) and LTE (4G) networks around the world" and Qualcomm "holds a great many patents that are essential to cellular standards implemented by Apple products." According to Qualcomm, "Apple products that have been certified as compliant with a standard necessarily practice every patent claim that is essential to any mandatory portions of that standard." Shortly after this assertion, Qualcomm demanded that Apple identify any listed portions of the standards that are not implemented in Apple's 3G/4G-capable products. Apple rejected Qualcomm's attempt to shirk its burden to prove the merits of its claims. Qualcomm thereafter removed from its website its public list of U.S.

patents disclosed to ETSI and precluded archive searching of that list. Consistent with Qualcomm's other hide-the-ball behavior, this action makes it harder for a licensee to determine which patents Qualcomm has declared to be essential to cellular standards.

117. During these 2016 discussions, Qualcomm sent Apple a draft Chinese 3G/4G SEP license agreement that demanded a [redacted] royalty on CDMA/UMTS-capable devices and a [redacted] royalty on LTE-only devices, calculated from a royalty base of [redacted] of the net selling price of the device. Qualcomm did not and has not provided any explanation for its chosen royalty base. Qualcomm also did not and has not provided any determination as to which of its Chinese patent claims are essential to a covered standard implemented as to each proposed covered Apple product. As described herein and below, Qualcomm's demand violates the law governing patent royalties, as well as Qualcomm's FRAND promises to ETSI and others. Qualcomm repeated such non-FRAND terms in a draft "rest of the world" 3G/4G SEP license.

118. Despite Qualcomm's non-FRAND terms, during this time period Apple attempted to negotiate in good faith with Qualcomm, including providing Qualcomm with a FRAND offer, which included not only significant payments to Qualcomm over the next seven years but also the methodology used to arrive at such offer. Qualcomm rejected Apple's attempt to negotiate and instead reverted to its prior terms.

119. After 25 months of negotiation and numerous requests for information from Apple, Qualcomm finally agreed to share with Apple patent information about Qualcomm's SEP portfolio, sharing such information right before the 2016 holiday.[2] Over the course of two in-person meetings with Qualcomm engineers,

[2] Qualcomm had previously conditioned patent infringement allegations on Apple's agreement in writing not to disclose to government agencies or use the information outside of the parties' licensing negotiations, despite the parties'

Qualcomm outside counsel, and Apple in-house and outside counsel, Qualcomm provided infringement allegations about 20 U.S. patents it has declared to ETSI as essential to 3G/UMTS and/or 4G/LTE.

120. During this period of negotiation, Qualcomm became increasingly aggressive with respect to its cellular SEP portfolio. In addition to removing the list of potentially essential U.S. patents from its website to prevent searches and attempting to bar Apple from sharing patent infringement allegations, Qualcomm asserted patents that it had declared to ETSI as essential to 3G or 4G in a blitzkrieg of patent infringement litigation. For example, when Meizu, China's eighth-biggest smartphone maker in 2015, did not accept Qualcomm's rectification plan terms, Qualcomm filed 18 separate actions against Meizu including 17 patent infringement cases.[3]

121. On June 23, 2016, Qualcomm filed a complaint against Meizu, seeking rulings that (1) the terms of a patent license offered by Qualcomm to Meizu comply with China's Anti-Monopoly Law and Qualcomm's FRAND licensing obligations, and (2) the offered patent license terms should form the basis for a patent license with Meizu for Qualcomm's technologies patented in China for use in mobile devices, including those relating to 3G and 4G wireless communications standards.[4]

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previously agreeing, in March 2016, that any materials used during licensing negotiations could be used outside of those negotiations. Apple refused this condition.

[3] [John Ruwitch and Brenda Goh, Qualcomm Files 17 New Complaints in China Courts Against Smartphone Maker Meizu, Reuters (June 30, 2016), http://www.reuters.com/article/us-qualcomm-meizu-patents-idUSKCN0ZG1I6.]

[4] [Press Release, Qualcomm Files Complaint Against Meizu in China, Qualcomm (June 24, 2016), https://www.qualcomm.com/news/releases/2016/06/23/qualcomm-files-complaint-against-meizu-china.] Days later, on June 30, 2016, Qualcomm filed patent infringement actions in China against Meizu, where it asserted Chinese patents declared to ETSI as essential to 3G/UMTS and/or 4G/LTE. [Press Release, Qualcomm Files Patent Infringement Complaints Against Meizu in China, Qualcomm (June 30, 2016), https://www.qualcomm.

Patents-in-Suit

122. Each of the Patents-in-Suit (a) has been declared to ETSI by Qualcomm to be essential to 3G/UMTS and/or 4G/LTE and (b) is either a U.S. counterpart to a Chinese patent asserted by Qualcomm in litigation or a U.S. patent for which Qualcomm provided infringement allegations during the parties' licensing negotiations. These facts create a substantial case or controversy between Apple and Qualcomm regarding (a) whether the Patents-in-Suit are actually essential to the 3G/UMTS and/or 4G/LTE standards and infringed by Apple's products that support those standards, and (b) if any of these patents are actually essential, how to set a FRAND royalty for such patents.

123. Qualcomm purports to be the owner of U.S. Patent No. 7,246,242 ("the '242 patent"). On July 17, 2007, the '242 patent, entitled "Integrity Protection Method for Radio Network Signaling," issued to Valtteri Niemi, Jaakko Rajaniemi, and Ahti Muhonen. Nokia Corporation is listed as the assignee on the face of the '242 patent. The '242 patent is the U.S. counterpart to Chinese Patent No. CN1134200C, asserted against Meizu. A copy of the '242 patent is attached to this Complaint as **Exhibit G**.

124. Qualcomm purports to be the owner of U.S. Patent No. 6,556,549 ("the '549 patent"). On April 29, 2003, the '549 patent, entitled "Method and Apparatus for Signal Combining in a High Data Rate Communication System," issued to Paul E. Bender, Matthew S. Grob, Gadi Karmi, and Roberto Padovani. Qualcomm is listed as the assignee on the face of the '549 patent. The '549 patent is a U.S. counterpart to Chinese Patent No. CN100367694C, asserted against Meizu. A copy of the '549 patent is attached to this Complaint as **Exhibit H**.

125. Qualcomm purports to be the owner of U.S. Patent No. 9,137,822 ("the

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com/news/releases/2016/06/30/qualcomm-files-patent-infringement-complaints-against-meizu-china.]

'822 patent"). On September 15, 2015, the '822 patent, entitled "Efficient Signaling over Access Channel," issued to Arak Sutivong, Edward Harrison Teague, and Alexei Gorokhov. Qualcomm is listed as the assignee on the face of the '822 patent. The '822 patent is the U.S. counterpart to Chinese Patent No. CN1918839B. A copy of the '822 patent is attached to this Complaint as **Exhibit I**.

126. Qualcomm purports to be the owner of U.S. Patent No. 7,289,630 ("the '630 patent"). On October 30, 2007, the '630 patent, entitled "Counter Initialization, Particularly for Radio Frames," issued to Jukka Vialén and Valtteri Niemi. The '630 patent is a U.S. counterpart to Chinese Patent No. CN1193641C. A copy of the '630 patent is attached to this Complaint as **Exhibit J**.

127. Qualcomm purports to be the owner of U.S. Patent No. 8,867,494 ("the '494 patent"). On October 21, 2014, the '494 patent, entitled "System and Method for Single Frequency Dual Cell High Speed Downlink Packet Access," issued to Josef J. Blanz and Sharad Deepak Sambhwani. Qualcomm is listed as the assignee on the face of the '494 patent. Qualcomm presented infringement allegations for the '494 patent during the parties' December 2016 in-person meetings. A copy of the '494 patent is attached to this Complaint as **Exhibit K**.

128. Qualcomm purports to be the owner of U.S. Patent No. 7,095,725 ("the '725 patent"). On August 22, 2006, the '725 patent, entitled "Method and Apparatus for Data Transmission on a Reverse Link in a Communication System," issued to Christopher Gerard Lott and Jean Put Ling Au. Qualcomm is listed as the assignee on the face of the '725 patent. Qualcomm presented infringement allegations for the '725 patent during the parties' December 2016 in-person meetings. A copy of the '725 patent is attached to this Complaint as **Exhibit L**.

129. Qualcomm purports to be the owner of U.S. Patent No. 6,694,469 ("the '469 patent"). On February 17, 2004, the '469 patent, entitled "Method and an Apparatus for a Quick Retransmission of Signals in a Communication System,"

issued to Ahmad Jalali, Eduardo A. S. Esteves, Nagabhushana T. Sindhushayana, Peter J. Black, and Rashid A. Attar. Qualcomm is listed as the assignee on the face of the '469 patent. Qualcomm presented infringement allegations for the '469 patent during the parties' December 2016 in-person meetings. A copy of the '469 patent is attached to this Complaint as **Exhibit M**.

130. Qualcomm purports to be the owner of U.S. Patent No. 9,059,819 ("the '819 patent"). On June 16, 2015, the '819 patent, entitled "Flexible Uplink Control Channel Configuration," issued to Arjun Bharadwaj and Sharad Deepak Sambhwani. Qualcomm is listed as the assignee on the face of the '819 patent. Qualcomm presented infringement allegations for the '819 patent during the parties' December 2016 in-person meetings. A copy of the '819 patent is attached to this Complaint as **Exhibit N**.

131. Qualcomm purports to be the owner of U.S. Patent No. 7,096,021 ("the '021 patent"). On August 22, 2006, the '021 patent, entitled "Method for Initiating in a Terminal of a Cellular Network the Measurement of Power Levels of Signals and a Terminal," issued to Otto Lehtinen, Antti Toskala. Qualcomm presented infringement allegations for the '021 patent during the parties' December 2016 in-person meetings. A copy of the '021 patent is attached to this Complaint as **Exhibit O**.

132. None of these patents is essential to any Apple-practiced 3G/UMTS or 4G/LTE standard or infringed by Apple. Moreover, for each of these patents, Qualcomm has breached its FRAND commitment.

Qualcomm's SEP Licensing Practices Are Not FRAND and Foreclose Competition

133. For nearly ten years, Qualcomm has failed to offer Apple a license for its cellular SEPs on FRAND terms.

134. By charging Apple [redacted] per device for a license to an unspecified portion of its portfolio of patents on top of the price of the chipset itself, in a license

fee expressed as a percentage of the entire value of Apple's iPhones and iPads, and only reducing that royalty in exchange for additional conditions (such as exclusivity and restraints on approaching competition authorities), Qualcomm's licensing practices violate its FRAND promise in a number of distinct but overlapping ways.

135. **Leveraging a "thicket" of patents to extort royalties.** Qualcomm purports to own very large numbers of patents around the world that have been disclosed to ETSI as potentially essential to one or more cellular standards. According to ETSI's self-reporting portal, Qualcomm has declared over 30,000 global assets to be "ESSENTIAL IPR."

136. Qualcomm's licensing practices are premised on every licensee taking a license to a large, but unspecified, number of patents—an entire portfolio. By leveraging the "thicket," Qualcomm attempts to avoid the patent-by-patent analysis that is ordinarily required for any licensing demand, instead hiding behind the sheer volume of its patent portfolio to extort royalties from potential licensees.

137. A patent-by-patent (or patent family-by-patent family) analysis is necessary because Qualcomm's unilateral declaration that its patents are standard-essential does not necessarily mean that those patents are valid and infringed by Apple. Rather, one or all of the following may be true: (a) those patents read only on an optional implementation of a standard that Apple does not practice; (b) Qualcomm has over-declared its patents and those patents are not in fact essential to any standard, something that the SSOs, including ETSI, do not police; and/or (c) those patents are invalid, again something that the SSOs, including ETSI, do not test. If the patent at issue is not valid or not infringed, it is obviously of little to no value to Apple. See Microsoft, 2013 WL 2111217, at *20 ("[B]ecause an 'essential' patent is one that is necessary to implement either an optional or mandatory provision of a standard, a specific SEP may contribute greatly to an optional portion of a given standard, but if that portion is not used by the implementer, the specific

SEP may have little value to the implementer.").

138. Moreover, as discussed in more detail below, even if a patent is declared essential to a standard, the appropriate royalty will vary on a patent-by-patent basis, as the strength of each patent and the value compared to commercially available alternatives examined prior to the patent's incorporation into a standard must be taken into account. See id. at *13, 19 ("If alternatives available to the patented technology would have provided the same or similar technical contribution to the standard, the actual value provided by the patented technology is its incremental contribution.").

139. Similarly, where a patent is directed to a particular component rather than the device or technology as a whole, the appropriate royalty will reflect each patent's contribution to the relevant component. See LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51, 67 (Fed. Cir. 2012).

140. Further, the royalty rates that Qualcomm demands, a simple percentage of the final price of the finished device, have no apparent tie to the merits of Qualcomm's cellular SEP portfolio. For example, Qualcomm demands royalty rates that fail to account for its pro rata share as compared to other cellular SEP holders so as to avoid obvious royalty stacking issues. In the context of Qualcomm's FRAND obligations, the size of Qualcomm's cellular SEP portfolio and number of self-declared cellular SEPs are not acceptable substitutes for substantive analysis as to why each patent is essential to the standard, or any showing as to the quality of patents included in the portfolio, particularly as compared to other cellular SEP holders. By requiring a license to the full cellular SEP portfolio, Qualcomm forces licensees to take and pay for a license regardless of whether the patent is valid and infringed.

141. Failing to offer an individual license on a patent-by-patent basis (or a patent family-by-patent family basis) violates Qualcomm's FRAND obligation.

142. **Charging an exorbitantly high royalty that is expressed as a percentage of the entire market value of the finished device.** The exorbitant royalty demanded by Qualcomm, [redacted] per device, is based on the net selling price of the final iPhone or iPad. Even Qualcomm's current license offer—[redacted] of the final selling price, "consistent" with the NDRC resolution—is simply a smaller percentage of the entire value of the finished iPhone or iPad. This fee does not comply with patent law or Qualcomm's FRAND obligations.

143. First, this practice discriminates against potential licensees. Specifically, Qualcomm's royalty base does not equally account for whether the licensee makes chips, chipsets, and/or handsets. Apple, as a manufacturer of a more complex final device, is taxed simply for its place in the supply chain, while a manufacturer of a chipset would pay less.

144. In addition, a royalty base premised on final selling prices means that Qualcomm charges manufacturers of high-value, feature-rich smartphones substantially more for a license than it charges manufacturers of basic cellphones, despite the fact that the embodied wireless communications functionality in the two products is similar or identical. This is inconsistent with the FRAND promise. In re Innovatio IP Ventures, LLC Patent Litig., No. 11 C 9308, 2013 WL 5593609, at *38 (N.D. Ill. Oct. 3, 2013) (A RAND licensor "cannot discriminate between licensees on the basis of their position in the market.").

145. For example, Apple sells high-end products with a selling price between $399 for a 16GB iPhone SE and $969 for a 256GB iPhone 7 Plus, whereas Walmart sells an unlocked 16GB Kyocera 4G LTE smartphone for under $100. [Apple, www.apple.com/iphone; Walmart, https://www.walmart.com/ip/Kyocera-DuraForce-E6560-16GB-Unlocked-GSM-4G-LTE-Military-Grade-Smartphone-w-8MP-Camera-Black/117746885.] The two phones have different costs, different

consumer appeal, and different prices, for reasons almost entirely unrelated to the wireless voice and data capability contributed by Qualcomm's purportedly standard-essential patents. Yet Qualcomm insists on a far-greater royalty payment for the use of its SEPs in the more expensive phone, even though the contribution of wireless capability to both phones is similar. As a result, Apple's royalty payment for the 16GB iPhone 6 SE would be about four to nine times more than Kyocera's royalty for its smartphone. This disparity flouts the fundamental premise of, among others, the "non-discriminatory" aspect of FRAND obligations—allowing competitors who implement the standards access to the SEPs on a level playing field, with no one competitor paying more for the same technology than others.

146. The impropriety of Qualcomm's proposed royalty base becomes even more apparent when one considers that Apple sells multiple versions of an iPhone or iPad product, each having a different price but including identical, or similar, baseband processor chipsets (and therefore containing the same functionality that allegedly infringes SEPs). For example, the Apple iPhone 7 is sold with different memory configurations resulting in a difference of ~$200 in the adjusted net selling price as between an iPhone 7 with 32GB of memory and one with 256GB of memory. Even though both devices provide exactly the same standardized cellular functionality, Qualcomm is effectively demanding that Apple pay a cellular SEP royalty on the 256GB iPhone 7 that is [redacted] more than the royalty paid on the phone with 32GB of memory. As a result, Apple would pay essentially a [redacted] additional royalty based on the presence of additional flash memory, which has nothing to do with Qualcomm's cellular SEP patents or even Qualcomm's products. Apple's royalty payment should not fluctuate based on purchasing decisions by downstream customers, who desire features, such as more memory, that are not covered by Qualcomm's SEP patents.

147. Second, Qualcomm's offer, which sets the royalty base at [redacted] of

the average selling price of the device, ignores binding Supreme Court and Federal Circuit precedent that forbids basing a royalty on an entire device unless the patent at issue drives consumer demand for the whole device. Instead, patent holders are required to base royalties, at most, on the smallest salable patent-practicing unit. LaserDynamics, 694 F.3d at 67 ("Where small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product. Thus, it is generally required that royalties be based not on the entire product, but instead on the 'smallest salable patent-practicing unit.'"); Golden Bridge Tech. v. Apple Inc., No. 5:12-cv-04882-PSG, 2014 WL 2194501, at *6 (N.D. Cal. May 18, 2014) ("[I]n any case involving multi-component products, patentees may not calculate damages based on sales of the entire product, as opposed to the smallest saleable patent-practicing unit ['SSPPU'], without showing that the demand for the entire product is attributable to the patented feature."). Furthermore, "[w]here the smallest salable unit is, in fact, a multi-component product containing several non-infringing features with no relation to the patented feature . . . , the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology." VirnetX, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1327 (Fed. Cir. 2014). A royalty that fails to comply with these requirements violates the FRAND promise. Innovatio IP Ventures, 2013 WL 5593609, at *13 (applying the smallest salable unit requirement to FRAND royalties); Microsoft, 2013 WL 2111217, at *20 (A reasonable royalty must take into account not only the contribution of the patented technology to the standard, but the "contribution of those capabilities of the standard to the implementer and the implementer's products.").

148. Here, the smallest salable unit for a cellular SEP license should be no greater than the baseband processor chipset, where all or substantially all of the

inventive aspects of the patented cellular standard-essential technology is implemented or substantially practiced. See GPNE Corp. v. Apple, Inc., No. 12-CV-02885-LHK, 2014 WL 1494247, at *13 (N.D. Cal. Apr. 16, 2014) (holding "as a matter of law that in this case [where the asserted patents were claimed to be essential to 3G and 4G cellular standards], the baseband processor is the proper smallest saleable patent-practicing unit").

149. Qualcomm's offer also ignores Federal Circuit precedent relating to royalties for SEPs that requires one to apportion the patented features of the smallest salable unit from the unpatented ones as well as the value derived by the standard's adoption of the patented technology. Ericsson, 773 F.3d at 1232 ("When dealing with SEPs, there are two special apportionment issues that arise. First, the patented feature must be apportioned from all of the unpatented features reflected in the standard. Second, the patentee's royalty must be premised on the value of the patented feature, not any value added by the standard's adoption of the patented technology."); VirnetX, 767 F.3d at 1327 ("[T]he requirement that a patentee identify damages associated with the smallest salable patent-practicing unit is simply a step toward meeting the requirement of apportionment. . . . [T]he patentee must do more to estimate what portion of the value of that product is attributable to the patented technology."); see also Commonwealth Sci. & Indus. Research Org. v. Cisco Sys., Inc. (*CSIRO*), 809 F.3d 1295, 1305 (Fed. Cir. 2015), cert. denied, 136 S. Ct. 2530 (2016) ("[R]easonable royalties for SEPs generally . . . must not include any value flowing to the patent from the standard's adoption.").

150. Qualcomm has not even attempted this required apportionment, and thus has failed to specify the value attributable to the patented technology, separate and apart from the other value attributable to, among other things, (i) non-patented features, (ii) standardization itself, and (iii) unrelated technology.

151. Third, Qualcomm's selected [redacted] (CDMA/UMTS-capable devices)

and [redacted] (LTE-only devices) royalty rates also do not account for the entire potential royalty stack. See, e.g., Microsoft, Inc., 2013 WL 2111217, at *74 ("[T]he court must determine a reasonable royalty rate . . . based on the principles underlying the RAND commitment, one of which is the concern of royalty stacking."). At a minimum, Qualcomm's offered rates do not account for its pro rata share of 3G and 4G SEPs compared to the total, industry-wide pool of such SEPs. Indeed, Qualcomm has refused to furnish its pro rata share of 3G and 4Gs SEPs. Based on publicly available data from ETSI, Qualcomm's self-declarations to 3G/4G standards account for about 23.5 percent of all cellular SEP declarations. Extrapolating the projected royalty per device Apple would pay to Qualcomm under its proposed licensing structure [redacted] to the aggregate royalty yields a staggering [redacted] per device royalty for all declared-essential cellular patents.

152. Qualcomm's high nominal royalty rates for its SEPs are well above the upper bounds of a reasonable royalty under FRAND, particularly for feature-rich smartphones and tablets that offer a number of technologies and features other than those covered by its purportedly standard-essential patents. Qualcomm's excessive royalties and royalty base levy a tax on the production of complementary products or features that consumers desire, allowing Qualcomm to extract for itself value created by downstream innovators, value that has no relationship to the ex ante value of the SEPs at issue and does not account for the royalty stack. In addition, Qualcomm's exorbitant royalty demands lay the foundation for the exclusive dealing and tying arrangements that it uses to exclude chipset competitors, giving Qualcomm leverage to foreclose its competitors from accessing chipset customers.

153. **Discriminating between potential licensees by failing to license its competitors.** The requirement that a license to a SEP be non-discriminatory helps "to insure that standards do not allow essential patent owners to extort their competitors or prevent them from entering the marketplace." Apple, Inc. v.

Motorola Mobility, Inc., No. 11-cv-178-bbc, 2011 WL 7324582, at *1 (W.D. Wis. June 7, 2011). Qualcomm breached its FRAND promise by failing to offer its competitor baseband processor chipset manufacturers a license, harming competition in the industry.

154. Prior to 2008, Qualcomm licensed its FRAND-encumbered cellular SEPs to competing chipset manufacturers, and acknowledged its obligations to do so pursuant to its FRAND commitments. For example, in response to an investigation by the European Commission of its anticompetitive conduct, Qualcomm stated publicly in 2005 that it had "never refused to license our essential patent to any company to supply chips, handsets, infrastructure or test equipment." In the same year, Qualcomm claimed that it had licensed numerous chipset manufacturers, including competitors such as Nokia, Texas Instruments, and NEC, and that these licenses showed that Qualcomm "has lived up to its commitments to SSOs to license its essential patents on fair and reasonable terms."

155. In 2007, Qualcomm claimed publicly that competing manufacturers of CDMA and UMTS/WCDMA chipsets "have to take out a license from Qualcomm" and that Qualcomm had been "pretty consistent in that model." Again in 2007, Qualcomm represented to the United States Supreme Court that it had granted worldwide licenses to chipset manufacturers with a running royalty calculated as a percentage of the selling price of the chipset. Brief of Qualcomm Inc. as Amicus Curiae Supporting Respondent at 7, Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008) (No. 06-937). In the same filing, Qualcomm identified its practice of "licensing its intellectual property to entities that produce (non-Qualcomm) chips" as one of its three "primary sources of revenue," thereby acknowledging the feasibility and efficiency of licensing at the chipset level. Id.

156. Around 2007, Qualcomm's practice of licensing its FRAND-encumbered cellular SEPs to competitors changed. In 2006, Qualcomm's 10-K

stated that it entered into "License Agreements" with competing chipset manufacturers, and received royalties thereunder. In Qualcomm's 2007 10-K, the term "License Agreements" was replaced by "Agreements." Qualcomm's 2008 10-K provided that in "every case, these agreements do not allow such integrated circuit suppliers to pass through rights under Qualcomm's patents to such suppliers' customers, and such customers' sales of CDMA-based wireless subscriber devices into which such suppliers' integrated circuits are incorporated are subject to the payment of royalties to us in accordance with the customers' separate licensing arrangements with us."

157. Qualcomm has been unwilling since at least 2008 to license its SEPs to competitors, refusing to provide such licenses when requested. Qualcomm's 2014 10-K stated that Qualcomm's policy was to enter into "arrangements," but not exhaustive licenses, with competing chipset manufacturers. According to the KFTC, Samsung, Intel, and VIA Telecom have all requested SEP licenses from Qualcomm, and been refused.

158. A patent non-assert agreement or other contractual arrangement short of an exhaustive license is not a substitute for an exhaustive license because it gives Qualcomm the ability and incentive to interfere with its competitors' relationships with their customers. By contrast, a FRAND license would give competing chipset manufacturers the right to market authorized, patent-exhaustive sales of chipsets to Apple and other mobile device suppliers. Qualcomm's failure to license on FRAND terms eliminates the ability of Apple and other mobile device suppliers to purchase chipsets from Qualcomm's competitors without also paying royalties to Qualcomm, and thus exposes Apple and other mobile device suppliers to the threat of exorbitant non-FRAND royalties based on the price of their mobile devices, a threat which Qualcomm has used to force Apple to deal exclusively with Qualcomm on the purchase of chipsets.

159. **Preventing Apple from bringing its concerns to law enforcement.** As a condition of even partial relief from its non-FRAND royalties, Qualcomm sought to gag Apple and prevent it from bringing its concerns to law enforcement or challenging Qualcomm's compliance with FRAND commitments.

160. As described above, through the second paragraph of Section 7 of the BCPA, Qualcomm conditioned royalty relief on a provision that restricted Apple from initiating or inducing certain legal actions in three particular identified areas: (a) assertion of patents against Qualcomm; (b) claims that Qualcomm failed to offer a license to its SEPs on FRAND terms; and (c) claims that Qualcomm's patent rights were exhausted. [**Exhibit A**, BCPA § 7, paragraph 2.] The BCPA carved out, as it must, an acknowledgment that Apple has a responsibility to respond to enforcement agencies' requests for information. But in restraining Apple from initiating action or bringing concerns to law enforcement, Qualcomm conditioned billions of dollars on Apple's silence before courts and regulators about Qualcomm's business practices. And Qualcomm is now interpreting that agreement to retaliate against Apple for responding to requests for information about Qualcomm's practices from competition agencies, inhibiting law-enforcement review of Qualcomm's anticompetitive practices.

161. The FTC recently alleged that Qualcomm's ongoing anticompetitive scheme is premised on avoiding governmental scrutiny of its non-FRAND licensing scheme, including by deterring device manufacturers from seeking FRAND determinations by withholding supply of Qualcomm's monopoly chipsets. According to the FTC, Qualcomm's "no license-no chip" policy effectively denies OEMs the opportunity to challenge Qualcomm's royalty demands" by "dramatically increasing OEMs' costs of going to court." FTC Compl. ¶ 78, Qualcomm, No. 5:17-cv-00220. The BCPA's gag clause is just another such contract term, one that has the purpose and effect of keeping Qualcomm's

monopoly power safe from the rule of law.

Competition Agencies Around the World Investigate and Take Action Against Qualcomm

162. Despite Qualcomm's efforts to conceal its illegal business practices from regulators, the past few years have seen government investigations into Qualcomm by competition authorities in China, South Korea, Taiwan, Japan, Europe, and the United States.

163. Competition law enforcement agencies in China, Japan, South Korea, and the European Commission have already found Qualcomm to be in violation of the competition laws of their respective jurisdictions.

164. The U.S. FTC, just this week, filed a lawsuit against Qualcomm, charging it with monopolizing the market for baseband processor chipsets. The FTC notified Qualcomm of an investigation in September 2014. On January 17, 2017, the FTC sued Qualcomm, charging it with monopolizing the market for CDMA and premium LTE baseband processor chipsets. The FTC's complaint alleged the same integrated cycle of anticompetitive conduct which Apple alleges here, including Qualcomm's refusal to license its competitors, its refusal to sell chipsets without a license, and its imposition of exclusivity on Apple in exchange for a degree of royalty relief, all of which has had, according to the FTC, the effect of marginalizing Qualcomm's competitors and elevating prices above competitive levels. FTC Compl., Qualcomm, No. 5:17-cv-00220. [See also Press Releases, FTC Charges Qualcomm With Monopolizing Key Semiconductor Device Used in Cell Phones, FTC (Jan. 17, 2017), https://www.ftc.gov/news-events/press-releases/2017/01/ftc-charges-qualcomm-monopolizing-key-semiconductor-device-used.]

165. Even before the U.S. FTC began investigating Qualcomm, in November 2013, China's National Development and Reform Commission ("NDRC") launched an investigation into Qualcomm's anticompetitive practices. On February 10, 2015,

the NDRC found that Qualcomm violated the abuse of dominance provisions of the China Anti-Monopoly Law and, inter alia, imposed a fine of eight percent of Qualcomm's annual revenue within the territory of China for 2013—a $975 million fine. The NDRC found Qualcomm was dominant in a number of SEP licensing and baseband processor chipset markets, including CDMA and LTE chipsets, and that this dominant position was protected by barriers to entry. The NDRC also found that Qualcomm acted anticompetitively by, among other things, forcing device manufacturers to take a license to Qualcomm's SEPs on unreasonable terms and as a condition of purchasing Qualcomm's chipsets.

166. Soon after the NDRC issued its decision, Qualcomm implemented a rectification plan that purportedly modifies certain of its business practices in China. That plan has never been adopted or endorsed by any agency or court; however, Qualcomm purports to have executed numerous license agreements with Chinese manufacturers on terms consistent with the rectification plan. Notably, under the rectification plan Qualcomm unilaterally set the 5 percent and 3.5 percent royalty rates as well as selected the base of 65 percent of the net selling price of the device. [See Press Release, Qualcomm and China's National Development and Reform Commission Reach Resolution, Qualcomm (Feb. 9, 2015), https://www.qualcomm. com/news/releases/2015/02/09/qualcomm-and-chinas-national-development-and-reform-commission-reach.] [redacted] No declaration or statement by any administrative body has found these terms to be consistent with Qualcomm's obligations to grant licenses to SEPs on FRAND terms.

167. The Japan Fair Trade Commission ("JFTC") has been investigating Qualcomm since 2006. In September 2009, the JFTC concluded that Qualcomm violated the Japanese Antimonopoly Act by forcing licensees to cross-license their patents on a royalty-free basis and agree to a non-assert provision, and ordered the

company to cease these practices.

168. The KFTC has been investigating Qualcomm's anticompetitive practices for close to a decade. In July 2009, the KFTC levied the largest fine it had ever imposed on a company—$207 million—on Qualcomm for abusing its dominant share of the CDMA chipset market. Undeterred, Qualcomm doubled down on its unlawful conduct. After initiating a new investigation into Qualcomm's monopolization of additional chipset markets, and holding numerous hearings at which both Apple and Qualcomm presented evidence, the KFTC announced a decision in December 2016 to impose an even larger fine—1.03 trillion South Korean Won, or more than $850 million—for Qualcomm's monopolistic conduct, and to mandate changes to Qualcomm's business model. Specifically, the KFTC found that Qualcomm was dominant in the markets for CDMA chipsets and LTE chipsets, and that Qualcomm acted anticompetitively by, inter alia, refusing to license its cellular SEPs to competitors, in violation of its FRAND commitments, and by forcing device manufacturers to enter into unfair license agreements by using its chipset supply as leverage. [Press Release, KFTC Imposes Sanctions Against Qualcomm's Abuse of SEPs of Mobile Communications, KFTC (Dec. 28, 2016), http://www.ftc.go.kr/eng/solution/solution.jsp?file_name1=/files/bbs/2017/&file_name2=KFTC%20imposes%20sanctions%20against%20Qualcomm%A1%AFs%20abuse%20of%20SEPs%20of%20mobile%20communications.pdf.]

169. In October 2014, the European Commission ("EC") notified Qualcomm of its investigation. The EC issued two Statements of Objections against Qualcomm in December 2015, one of which alleged that Qualcomm's exclusivity arrangements with "a major smartphone and tablet manufacturer" harmed chipset competition. [Press Release, Antitrust: Commission Sends Two Statements of Objections on Exclusivity Payments and Predatory Pricing to Qualcomm, European Commission (Dec. 8, 2015), http://europa.eu/rapid/press-release_IP-15-6271_en.htm.] That

manufacturer is Apple; the contract that the EC has preliminarily found to be unlawful is among the agreements at issue in this case.

170. Today, investigations and/or hearings of Qualcomm are ongoing before the JFTC and the Taiwan Fair Trade Commission ("TFTC").

Apple Responds to Agency Requests

171. Government agencies investigating Qualcomm have sought information from third parties who do business with Qualcomm, including Apple. Apple has responded to requests for information from the FTC, the EC, the KFTC, and the TFTC about its contractual relationship with Qualcomm.

172. Specifically, Apple has produced documents to the FTC under subpoena and a civil investigative demand,[5] and two Apple executives have testified under subpoena at FTC depositions. At the KFTC's request, on August 17, 2016, Apple testified in an open session about Qualcomm's business model and licensing practices. Apple also provided detailed narrative answers to factual questionnaires from the EC and the TFTC, and has responded to other requests for information from the agencies.

173. Qualcomm has had the opportunity to advocate on its own behalf in these investigations, by making submissions of its own and cross-examining witnesses. For example, Qualcomm representatives were present when Apple made its presentation to the KFTC, and those representatives (including Qualcomm's President) were given the opportunity to comment on Apple's testimony.

174. As described above, the BCPA permits Apple to respond to requests from governmental agencies on any topic and in any way it sees fit. [**Exhibit A**,

[5] Civil investigative demands, or CIDs, are authorized by the Antitrust Civil Process Act, 15 U.S.C. § 1311 et seq., and are considered by Congress to be "the basic investigative tools necessary for expeditious investigations into possible civil violations of the federal antitrust laws." H.R. Rep. No. 94–1343, 1976 U.S. Code Cong. & Admin. News 2572, 2596.

BCPA § 7, paragraph 3.] Apple has provided information and presentations only at the requests of the agencies. Apple has not "induced" any agency or any other third party to take action against Qualcomm on grounds that Qualcomm's licensing practices violated the FRAND promise or that Qualcomm's patents were exhausted.

175. Apple has complied with all of the other conditions and requirements of the BCPA.

Qualcomm Retaliates By Withholding Nearly $1 Billion From Apple

176. From 2013 through mid-2016, Apple received quarterly rebates from Qualcomm, including the rebates required under the BCPA, called BCP Payments.

177. Qualcomm abruptly changed course for the second quarter 2016 BCP Payment.

178. In September 2016, Qualcomm stopped making BCP Payments without warning. The BCP Payment for the second quarter of 2016, in the amount of approximately [redacted], fully accrued on June 30, 2016 and was due on September 13, 2016. [**Exhibit A**, BCPA §§ 7, 8.] Apple submitted all the required documentation, and all other conditions in the normal reporting and payment periods were fulfilled. However, Apple did not receive the payment as scheduled.

179. Notably, Qualcomm and Apple executives had met in mid-September 2016, the week that the second quarter BCP Payment was due, and Qualcomm did not notify Apple that it intended to withhold payment, nor did Qualcomm raise any other issue.

180. The date of Qualcomm's first refusal to pay the rebate it owed is not coincidental. Apple made a presentation to the KFTC, at the KFTC's request, on August 17, 2016, just a few weeks before Qualcomm refused to pay this BCP Payment. In other words, not even one month later, Qualcomm retaliated against Apple for its testimony.

181. In an effort to discern why Qualcomm was withholding [redacted]

[redacted], Apple reached out to Qualcomm shortly after Qualcomm refused to make the BCP Payment for the second quarter of 2016.

182. In response to Apple's inquiry, Qualcomm indicated it would withhold all future payments due to "legal issues" regarding Apple's interactions with the KFTC and other competition agencies. Qualcomm confirmed that it "will not make any further BCP Payments to Apple" after the first quarter of 2016.

183. Apple explained that it was providing information only at the agencies' request, as allowed by the BCPA, and that Qualcomm's series of pretextual excuses for withholding BCP Payments found no support in the BCPA or in fact.

184. For example, Qualcomm has claimed Apple triggered the second paragraph of Section 7 of the BCPA, relieving Qualcomm of its obligation to make BCP Payments, by "making untrue and misleading statements about Qualcomm to government agencies." This argument is both false and irrelevant.

185. All of Apple's statements to government agencies investigating Qualcomm's anticompetitive and extortionist licensing practices were true, to the best of Apple's knowledge and understanding at the time the statements were made. Qualcomm has identified only a handful of statements that it contends were inaccurate, none of which was inaccurate.

186. Apple's interactions with government agencies regarding Qualcomm in the last three years, including the KFTC, have all been at the request of those agencies. The KFTC independently reached out to Apple for information about Qualcomm's business and licensing practices, well after the KFTC had initiated its investigation of Qualcomm.

187. Because Apple's actions fall squarely within the unconditional exception in the third paragraph of Section 7 of the BCPA for responses to government requests, Qualcomm has no basis to challenge those statements further.

188. It would be irrational and harmful to public policy to permit Qualcomm

to censor Apple's statements, or punish Apple for cooperating with government investigations, based on Qualcomm's naked assertion that Apple's statements were wrong—particularly when it was granted no such right in the BCPA.

189. As another example of a meritless and pretextual excuse, Qualcomm claimed that Apple induced Samsung, a third party (and, coincidentally, Apple's fiercest competitor and bitter rival), to advocate to the KFTC that it pursue an investigation of Qualcomm's licensing practices. Qualcomm claimed that an unnamed "senior Apple executive" took such actions.

190. Despite Apple's requests, Qualcomm has never identified the "executive" it claims induced Samsung to take agency action. Instead, Qualcomm has repeatedly shifted the burden to Apple to prove the negative, and claimed that Apple should provide Qualcomm with extensive information about Apple's communications with Samsung. No provision of the BCPA requires this.

191. Qualcomm gave other excuses for withholding payment under the second paragraph of Section 7 of the BCPA, none of which is based in law or fact.

192. After Apple rebutted Qualcomm's arguments and explained that they have no basis in fact or law, on December 2, 2016, Qualcomm stated that it believed that "the parties' dispute could be resolved," if Apple retracted and corrected its statements to government agencies. Qualcomm offered to "work with Apple on such corrective statements."

193. Specifically, Qualcomm offered to pay Apple the nearly $1 billion it owed if Apple would, in Qualcomm's words:

> (i) publicly and specifically retract and correct each of Apple's misstatements about Qualcomm to regulatory agencies, including those detailed above; (ii) inform the relevant agencies that such statements were and are untrue; (iii) disclose Apple's correspondence with any agencies relating to any investigation of Qualcomm;6 (iv)

[6] Notably, Qualcomm may be demanding this discovery in an attempt to make an end-run around a court order. On January 7, 2016, Qualcomm filed an ex parte

> provide any and all additional facts to regulators and Qualcomm relating to Apple's dealings with Intel concerning any possible or actual consideration from Intel to Apple relating to Apple's implementation of WiMax or the use of Intel chips; and (v) provide Qualcomm with the requested information about any communications between Apple's senior executives and Samsung.

194. Thus, in an extraordinary and transparent effort to manipulate regulatory investigations into its anticompetitive behavior, Qualcomm offered to repay Apple nearly $1 billion in withheld BCP Payments if Apple recanted its true and, in many cases, sworn testimony before government agencies and instead gave false testimony favorable to Qualcomm.

195. Qualcomm's actions—interpreting BCPA Section 7, paragraph 2 to give it the power to restrict Apple's responses to government investigations, withholding payments that it owes Apple in retaliation for providing information to competition agencies, and offering to pay Apple the money Qualcomm owes only if Apple recants—violate the express terms of the BCPA, and also violate public policy in favor of full and fair disclosure to governmental investigators without fear of retaliation. Apple is under no obligation to deceive regulators or recant its truthful testimony in order to receive the money it is owed.

196. Apple had a legal duty to comply with all subpoenas and civil investigative demands from the FTC. E.g., 15 U.S.C. §§ 49, 57b-1; 16 C.F.R. §§ 2.7, 2.10, 2.11, 2.12. And FTC Rule of Practice 2.4 expressly encourages cooperation and full disclosure in any competition investigation, both compulsory and voluntary:

> The Commission encourages cooperation in its investigations. In all matters, whether involving compulsory process or voluntary requests

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application in the Northern District of California for third-party discovery from Apple and other companies that the KFTC had contacted in its investigation of Qualcomm. The KFTC opposed Qualcomm's request, arguing that this discovery would "discourage third parties from cooperating with the KFTC." The Court denied Qualcomm's request. In re Ex Parte Application of Qualcomm Inc., 162 F. Supp. 3d 1029 (N.D. Cal. 2016).

> for documents and information, the Commission expects all parties to engage in meaningful discussions with staff to prevent confusion or misunderstandings regarding the nature and scope of the information and material being sought, in light of the inherent value of genuinely cooperative discovery.

16 C.F.R. § 2.4. The FTC's public comments on this rule stated that it "affirmed the Commission's endorsement of voluntary cooperation in all investigations." FTC Rules of Practice, 77 Fed. Reg. 188 (Sep. 27, 2012) (to be codified at 16 C.F.R. pts. 2 & 4).

197. Similarly, the International Competition Network, of which the FTC, the EC, and the TFTC are members, states in its Guidance on Investigative Process:

> Cooperation and engagement from parties and third parties are key contributing factors to an agency's ability to pursue fair and effective investigations. The credibility of a competition agency and, more broadly, of the overall mission of competition enforcement are closely tied to the integrity of the agency's investigative process and public understanding of such process. . . . Engagement with third parties (e.g., competitors, customers, sector regulators, or other non-parties that agencies may contact during an investigation) also promotes more informed and robust enforcement. Agencies should provide interested third parties with the opportunity to submit views to the agency during an investigation, and where appropriate, the opportunity to meet or discuss their views with the agency.

[International Competition Network, Guidance on Investigative Process at 1, 5, http://www.internationalcompetitionnetwork.org/uploads/library/doc1028.pdf.]

198. Retaliation against cooperating third parties violates established public policy. For example, responses to civil investigative demands, such as Apple's responses to the FTC's requests, are generally required to remain confidential "to safeguard the rights of individuals under investigation and to protect witnesses from retaliation." In re Air Passenger Computer Reservation Sys. Antitrust Litig., 116 F.R.D. 390, 392 (C.D. Cal. 1986) (quoting Illinois v. Abbott, 460 U.S. 557 (1983)) (emphasis added); see also A. Michael's Piano, Inc. v. FTC, 18 F.3d 138, 144–46 (2d Cir. 1994) (voluntary disclosures within the FTC's subpoena power also treated as confidential under 15 U.S.C. § 57b-2). Qualcomm's demand that Apple disclose

its communications with agencies, on pain of a nearly-billion-dollar penalty, violates this established public policy in favor of confidentiality and protecting against retaliation.

199. The same is true outside the United States. The KFTC has stated that it "relies heavily on third parties to gain information relevant to ongoing investigations and to detect anticompetitive activity in Korea," and like "many of its international counterparts, the KFTC often depends on the cooperation of third parties when investigating alleged antitrust violations." Ex Parte Application of Qualcomm, 162 F. Supp. 3d 1 at 1032.

200. Retaliation against cooperating third parties is forbidden in Korea. The Korean Monopoly Regulation and Fair Trade Act expressly states that an entity cannot retaliate against a third party for "[c]ooperating in investigations conducted by the Fair Trade Commission under Article 50." Korean Monopoly Regulation and Fair Trade Act art. 23-2. And Article 23-3 of that Act prohibits entrepreneurs from discontinuing transactions, reducing quantities, or giving "any disadvantage" to another entrepreneur who has cooperated in investigations by the KFTC. Id. art. 23-3. Indeed, the KFTC is currently investigating Qualcomm's behavior in retaliating against Apple for its interactions with the agency, and may impose sanctions as a result.

201. Courts routinely invalidate contracts that restrain witnesses from engaging in government investigation. E.g., Cariveau v. Halferty, 99 Cal. Rptr. 2d 417, 423–24 (Ct. App. 2000) (invalidating clause that prohibited customer from disclosing securities broker's misconduct); D'Arrigo Bros. of Cal. v. United Farmworkers of Am., 169 Cal. Rptr. 3d 171, 181 (Ct. App. 2014) (refusing to interpret settlement-agreement clause to prohibit union from cooperating with Agricultural Labor Relations Board investigation); EEOC v. Astra U.S.A., Inc., 94 F.3d 738, 745 (1st Cir. 1996) (holding that settlement agreements could not prohibit

employees from assisting an EEOC investigation); SEC v. Lipson, No. 97 C 2661, 1997 WL 801712, at *2 (N.D. Ill. Oct. 28, 1997) (holding that an "effort to preclude voluntary cooperation by potential witnesses with the SEC is unenforceable as against public policy"); see also Lachman v. Sperry-Sun Well Surveying Co., 457 F.2d 850, 853–54 (10th Cir. 1972) ("It is public policy in Oklahoma and everywhere to encourage the disclosure of criminal activity.").

202. Despite these and other established public policies encouraging free exchange of information and prohibiting retaliation, Qualcomm has not paid Apple what it owes. As of the date of filing this Complaint, Qualcomm has failed to pay either the [redacted] that it owed for the second quarter of 2016, which was due in September 2016 or the [redacted] BCP Payment for the third quarter of 2016, which fully accrued on September 30, 2016, and was due on December 14, 2016.

203. Based on Qualcomm's statement that it would not make "any further payments" to Apple, Apple expects Qualcomm to fail to make the final BCP Payment, for the fourth quarter of 2016; that BCP Payment fully accrued on December 31, 2016, and will become due on March 16, 2017. Apple estimates that payment to be worth [redacted].

204. Thus, Qualcomm is withholding a substantial amount, nearly $1 billion, that it owes Apple under the BCPA, in breach of its obligations and in retaliation for Apple's cooperation with competition authorities.

205. This behavior is an egregious overreach and violation of the law, even against the backdrop of Qualcomm's extensive illegal business practice. It confirms that Qualcomm will go to great lengths to ensure that these practices are concealed from government regulators with the power to mandate changes and impose substantial fines.

CLAIMS AND PRAYER FOR RELIEF

COUNT I

Breach of Contract

206. Apple restates and incorporates by reference each of the allegations set forth above.

207. As alleged herein, Qualcomm entered into express or implied contractual commitments with Apple, including the BCPA [**Exhibit A**].

208. The BCPA between Apple and Qualcomm was supported by adequate consideration for all parties.

209. Apple has complied with its obligations under the BCPA.

210. Under the BCPA, Qualcomm was contractually obligated, among other things, to make quarterly BCP Payments to Apple as specified in the agreements.

211. For the second and third quarters of 2016, Qualcomm breached the BCPA by refusing to tender payment after it had accrued and become payable.

212. The payment for the fourth quarter of 2016 will be due in March 2017.

213. Qualcomm has indicated a clear intent to withhold its payment for the fourth quarter of 2016.

214. By reason of the foregoing, Qualcomm materially breached the BCPA. Qualcomm's breach of the BCPA is total.

215. Qualcomm has no excuse for its breach, and all conditions precedent for Qualcomm's performance have been fulfilled.

216. As a result of Qualcomm's contractual breach, Apple has been injured in its business or property, and is threatened by imminent loss of profits, loss of customers and potential customers, and loss of goodwill and product image.

217. Among other things, Apple is entitled to (a) a declaration that Qualcomm has breached its commitments, and (b) its economic damages, including payment of the BCP Payments in full, plus interest.

218. In compliance with the dispute resolution procedures set forth in the BCPA, Apple and Qualcomm engaged in two 30-day periods of executive negotiations. The parties were unable to resolve these issues.

219. As a result of Qualcomm's withholding of BCPA Payments to Apple, Apple has no choice but to withhold the same amount from its CMs, which are Qualcomm licensees.

220. [redacted]

221. Apple is bringing this Complaint now, in light of the FTC filing a lawsuit against Qualcomm on January 17, 2017, because Apple is identified as a key purchaser of Qualcomm chipsets in the FTC complaint, and Qualcomm has demonstrated its willingness to retaliate swiftly against Apple when it believes agency or other actions are contrary to its interests.

COUNT II

Breach of the Implied Covenant of Good Faith and Fair Dealing

222. Apple restates and incorporates by reference each of the allegations set forth above.

223. At all relevant times, Qualcomm agreed and was required by law to act fairly and in good faith with respect to its obligations under the BCPA.

224. Qualcomm breached this implied covenant of good faith and fair dealing by, among other actions, withholding BCP Payments in retaliation for Apple's interactions with government regulators, and improperly advancing pretextual and meritless excuses for its breach that find no support in the BCPA.

225. Qualcomm's actions have unfairly frustrated the essential purpose of

the BCPA, and Apple has not obtained the reasonably and justifiably intended and expected benefit of its bargain with Qualcomm.

226. By reason of the foregoing, Qualcomm has breached the implied covenant of good faith and fair dealing.

227. As a result of Qualcomm's breach of the implied covenant of good faith and fair dealing, Apple has been injured in its business or property, and is threatened by imminent loss of profits, loss of actual and potential customers, and loss of goodwill and product image.

228. Among other things, Apple is entitled to (a) a declaration that Qualcomm has breached its commitments, and (b) Apple's economic damages.

COUNT III

Violation of Cal. Civ. Code § 1671(b)

229. Apple restates and incorporates by reference each of the allegations set forth above.

230. Under California Civil Code § 1671(b), a provision in a contract liquidating damages is void where the provision was "unreasonable under the circumstances existing at the time the contract was made."

231. Apple's actions have not contravened any provision of the BCPA, and Apple owes no damages to Qualcomm. Qualcomm's actions interpreting and acting on second paragraph of Section 7 of the BCPA impose an unlawful penalty on Apple under § 1671(b).

232. Qualcomm interprets the second paragraph of Section 7 of the BCPA to permit Qualcomm to withhold BCP Payments in retaliation for Apple's interaction with competition agencies, and to give Qualcomm the ability to censor the contents of those statements. If Qualcomm's interpretation were adopted, this would be an unlawful liquidated damages provision under § 1671(b) because it contemplates a single, definite performance—Apple's forbearance from making negative

statements to agencies about Qualcomm—and imposes a penalty contingent on breach of that performance.

233. As interpreted by Qualcomm, the liquidated damages set out in the second paragraph of Section 7 of the BCPA arise from a breach and contemplate a fixed and certain sum that has no proportional relation to the damages which may actually flow from a failure to perform under the contract.

234. As interpreted by Qualcomm, the liquidated damages provision in Section 7 of the BCPA is unreasonable because the withholding of BCP Payments bears no reasonable relationship to the range of actual damages that Qualcomm or Apple could have anticipated would flow from a breach of performance at the time the contract was made.

235. Because Qualcomm's interpretation of the second paragraph of Section 7 of the BCPA is void, Qualcomm has no excuse for its nonperformance.

236. In light of the illegality and unreasonableness of Qualcomm's interpretation of the second paragraph of Section 7 of the BCPA, Apple is entitled to the monetary, restitutionary, declaratory, and other relief requested herein, including but not limited to the payment of all BCP Payments wrongfully withheld by Qualcomm, with interest and other consideration in light of the wrongful delay in payment.

COUNT IV

Declaratory Relief—Cal. Code Civ. Proc. § 1060

237. Apple restates and incorporates by reference each of the allegations set forth above.

238. California Code of Civil Procedure § 1060 provides that:

> Any person interested under a written instrument, excluding a will or a trust, or under a contract . . . may, in cases of actual controversy relating to the legal rights and duties of the respective parties, bring an original action or cross-complaint in the superior court for a declaration of his or her rights and duties in the premises, including a determination of any question of construction or validity arising under

> the instrument or contract. He or she may ask for a declaration of rights or duties, either alone or with other relief; and the court may make a binding declaration of these rights or duties, whether or not further relief is or could be claimed at the time. The declaration may be either affirmative or negative in form and effect, and the declaration shall have the force of a final judgment. The declaration may be had before there has been any breach of the obligation in respect to which said declaration is sought.

239. Declaratory relief is appropriate because the rights and obligations under the BCPA between Apple and Qualcomm are at issue.

240. An actual controversy has arisen and now exists between Apple and Qualcomm concerning their respective rights and obligations under the BCPA because (a) Qualcomm has announced that it will refuse to pay, and is refusing to pay, currently accrued and due BCP Payments totaling nearly $1 billion; and (b) the pretextual reasons for its breach that Qualcomm is advancing are wrong as a matter of contract interpretation and law, and in any event, run afoul of public policy and law of this and other jurisdictions.

241. Apple desires a judicial determination as to the parties' rights and obligations under the BCPA, and a declaration of the following:

- That Qualcomm has breached its obligations under the BCPA;
- That Apple's actions did not trigger the second paragraph of Section 7 of the BCPA;
- That Qualcomm must pay the remaining BCP Payments, plus interest;
- That the second paragraph of Section 7 of the BCPA does not survive termination or expiration of the BCPA;
- That Apple did not breach its express or implied obligations under the BCPA; and/or
- That Apple did not breach the implied covenant of good faith and fair dealing or any other implied covenant of the BCPA.

242. A judicial determination is necessary and appropriate at this time in order for Apple to ascertain its rights and obligations under the BCPA. The parties'

relationship is ongoing, and a judicial determination would inform the parties' future conduct. In addition, a judicial determination is necessary and appropriate at this time in order to eliminate uncertainties in Apple's future conduct, including its petitions to the Courts.

COUNT V

Declaration of Noninfringement of U.S. Patent No. 7,246,242

243. Apple restates and incorporates by reference each of the allegations set forth above.

244. Representative claim 1 of the '242 patent reads as follows (claim element enumeration added for convenience):

Claim 1	
[a]	A method for checking integrity of messages transmitted during a connection between a first party and a second party, comprising:
[b]	specifying a first value at the first party, a second value at least partly at the first party and a count value at least partly at the second party to calculate an authentication value of a message, the first value being valid for one connection between the first party and the second party only;
[c]	transmitting the message and calculated authentication value from the first party to the second party;
[d]	calculating a second authentication value at the second party based on the received message;
[e]	comparing the calculated authentication value with the second authentication value to determine whether the authentication values match;
[f]	accepting the message if the authentication values match;
[g]	wherein the authentication values are calculated based on the message, the first value specified by the first party and the counter value at least partly specified by the second party.

245. The '242 patent is not essential to the 3G/UMTS standard, including, but not limited to, the standard described in 3GPP Technical Specification ("TS") 33.102, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitation: 1.[b].

246. No claim of the '242 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by

Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 1.[b].

247. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '242 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

248. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '242 patent.

COUNT VI

Declaration of FRAND Royalties for U.S. Patent No. 7,246,242

249. Apple restates and incorporates by reference each of the allegations set forth above.

250. Qualcomm has contractually obligated to license the '242 patent on FRAND terms and conditions.

251. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '242 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

252. To the extent that the '242 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '242 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '242 patent in this manner.

COUNT VII

Declaration of Noninfringement of U.S. Patent No. 6,556,549

253. Apple restates and incorporates by reference each of the allegations set forth above.

254. Representative claim 1 of the '549 patent reads as follows (claim element enumeration added for convenience):

Claim 1	
[a]	In a communication system in which each base station in communication with a remote station transmits a reverse link busy bit indicating whether its reverse link capacity has been exhausted, a method of determining the reverse link transmission rate of said remote station comprising:
[b]	determining a reverse link transmission rate in accordance with a combined reverse link busy signal generated in accordance with reverse link busy bits transmitted by each of said base stations; and
[c]	transmitting reverse link data in accordance with said reverse link transmission rate.

255. The '549 patent is not essential to the 3G/UMTS standard, including, but not limited to, the standard described in 3GPP TS 25.211, 25.212, 25.214, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitation: 1.[b].

256. No claim of the '549 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use,

importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 1.[b].

257. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '549 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

258. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '549 patent.

COUNT VIII

Declaration of FRAND Royalties for U.S. Patent No. 6,556,549

259. Apple restates and incorporates by reference each of the allegations set forth above.

260. Qualcomm has contractually obligated to license the '549 patent on FRAND terms and conditions.

261. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '549 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

262. To the extent that the '549 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '549 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. See CSIRO, 809 F.3d at 1305;

Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '549 patent in this manner.

COUNT IX

Declaration of Noninfringement of U.S. Patent No. 9,137,822

263. Apple restates and incorporates by reference each of the allegations set forth above.

264. Representative claim 12 of the '822 patent reads as follows (claim element enumeration added for convenience):

Claim 12	
[a]	In a wireless communication system, an apparatus to determine an indicator of channel quality, the apparatus comprising:
[b]	a processor configured to determine a metric of forward link geometry as a function of an observed transmission, wherein said observed transmission is selected from a group consisting of pilot signals, noise, and traffic on data channels, or any combination thereof, and to determine an estimate of channel quality as a function of at least the metric of the observed transmission;
[c]	a memory element configured to store a plurality of groups of access sequences, wherein the plurality of groups of access sequences correspond to different ranges of channel quality values,
[d]	and a plurality of access sequences in the plurality of groups of access sequences are distributed non-uniformly, such that the plurality of access of sequences are distributed in proportion to a number of access terminals requiring a given amount of power needed to send an indicator of acknowledgment to an access terminal; and
[e]	a selector configured to select an access sequence, randomly, from the group of the plurality of groups corresponding to a determined channel quality value.

265. The '822 patent is not essential to the 4G/LTE standard, including, but not limited to, the standard described in 3GPP TS 36.300, 36.321, at least because,

by way of non-limiting example, the 4G/LTE standard does not require the following claim limitation: 12.[d].

266. No claim of the '822 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 12.[d].

267. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '822 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

268. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '822 patent.

COUNT X

Declaration of FRAND Royalties for U.S. Patent No. 9,137,822

269. Apple restates and incorporates by reference each of the allegations set forth above.

270. Qualcomm has contractually obligated to license the '822 patent on FRAND terms and conditions.

271. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '822 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

272. To the extent that the '822 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '822 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '822 patent in this manner.

COUNT XI

Declaration of Noninfringement of U.S. Patent No. 7,289,630

273. Apple restates and incorporates by reference each of the allegations set forth above.

274. Representative claim 1 of the '630 patent reads as follows (claim element enumeration added for convenience):

Claim 1	
[a]	A method for protecting traffic in a radio access network supporting multiple radio bearers to/from a mobile station, the radio access network being connected to at least two core networks;
[b]	the method comprising:
[c]	maintaining a core network-specific authentication protocol;
[d]	maintaining a radio bearer-specific ciphering process;
[e]	generating, for each ciphering process, a count parameter comprising a cyclical sequence number and a hyperframe number which is incremented each time the cyclical sequence number completes one cycle; and
[f]	for each core network or authentication protocol:
[g]	initializing a first radio bearer of a session with a hyperframe number exceeding the highest hyperframe number used during the previous session; and

[h]	at the end of a session, storing at least part of the highest hyperframe number used during the session.

275. The '630 patent is not essential to the 3G/UMTS standard, including, but not limited to, the standards described in 3GPP TS 23.236, 25.331, 33.102, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitation: 1.[h].

276. No claim of the '630 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products so not satisfy the following claim limitation: 1.[h].

277. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '630 patent, with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

278. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '630 patent.

COUNT XII

Declaration of FRAND Royalties for U.S. Patent No. 7,289,630

279. Apple restates and incorporates by reference each of the allegations set forth above.

280. Qualcomm has contractually obligated to license the '630 patent on FRAND terms and conditions.

281. As a result of the acts described in the foregoing paragraphs, there

exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '630 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

282. To the extent that the '630 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '630 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '630 patent in this manner.

COUNT XIII

Declaration of Noninfringement of U.S. Patent No. 8,867,494

283. Apple restates and incorporates by reference each of the allegations set forth above.

284. Representative claim 17 of the '494 patent reads as follows (claim element enumeration added for convenience):

Claim 17	
[a]	A method for communication in a wireless network, comprising:
[b]	receiving first information on a first downlink channel from a first sector, and second information on a second downlink channel from a second sector, on a first downlink carrier frequency;
[c]	receiving first information on a first downlink channel from a first sector, and second information on a second downlink channel from a second sector, on a first downlink carrier frequency;
[d]	transmitting the jointly encoded first and second feedback information on an uplink channel over a first uplink carrier frequency.

285. The '494 patent is not essential to any Apple-practiced 3G/UMTS standard, including, but not limited to, the standard described in 3GPP TS 25.212, 25.214, 25.308, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitation: 17.[b].

286. No claim of the '494 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 17.[b].

287. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '494 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

288. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '494 patent.

COUNT XIV

Declaration of FRAND Royalties for U.S. Patent No. 8,867,494

289. Apple restates and incorporates by reference each of the allegations set forth above.

290. Qualcomm has contractually obligated to license the '494 patent on FRAND terms and conditions.

291. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '494 patent with

respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

292. To the extent that the '494 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '494 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '494 patent in this manner.

COUNT XV

Declaration of Noninfringement of U.S. Patent No. 7,095,725

293. Apple restates and incorporates by reference each of the allegations set forth above.

294. Representative claims 9 and 26 of the '725 patent reads as follows (claim element enumeration added for convenience):

Claim 9	
[a]	An apparatus comprising:
[b]	a transmit subsystem;
[c]	a processor coupled to the transmit subsystem and configured to control a data transmission rate of the transmit subsystem;
[d]	wherein the processor is configured to determine a new data transmission rate which is constrained to decrease by a limited amount from a current data transmission rate,
[e]	wherein the processor is configured to determine the new data transmission rate by determining a plurality of limiting rates and selecting a minimum of the limiting rates as the new data transmission rate; and

[f]	a transmit queue, wherein the limiting rates comprise at least a data-justified rate corresponding to an amount of data in the transmit queue.
Claim 26	
[a]	An apparatus comprising:
[b]	a transmit subsystem; and
[c]	a processor coupled to the transmit subsystem and configured to determine a new data transmission rate of the transmit subsystem by selecting the new rate from a plurality of limiting rates when the wireless communication system is in a not-busy state,
[d]	wherein the limiting rates include a ramp-up-limited rate which is set equal to the greater of a current data transmission rate and a sticky rate.

295. The '725 patent is not essential to the 3G/UMTS standard, including, but not limited to, the standard described in 3GPP TS 25.309, 25.321, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitations: 9.[d], 26.[d].

296. No claim of the '725 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitations: 9.[d], 26.[d].

297. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '725 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

298. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '725 patent.

COUNT XVI

Declaration of FRAND Royalties for U.S. Patent No. 7,095,725

299. Apple restates and incorporates by reference each of the allegations set forth above.

300. Qualcomm has contractually obligated to license the '725 patent on FRAND terms and conditions.

301. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '725 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

302. To the extent that the '725 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '725 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '725 patent in this manner.

COUNT XVII

Declaration of Noninfringement of U.S. Patent No. 6,694,469

303. Apple restates and incorporates by reference each of the allegations set forth above.

304. Representative claim 11 of the '469 patent reads as follows (claim

element enumeration added for convenience):

Claim 11	
[a]	An apparatus configured to retransmit signals in a communication system, comprising:
[b]	a decoder configured to decode contents of a unit of received signal;
[c]	a first feedback signal generator configured to generate a first feedback signal;
[d]	a first processor configured to determine a quality metric of said unit of signal; and instruct said feedback signal generator to generate a feedback signal in accordance with said quality metric; and
[e]	a preamble detector configured to detect and decode a preamble of said unit of signal; and wherein said first processor is further configured to prevent decoding of said unit of signal if said preamble indicates that said unit of signal is not to be decoded.

305. The '469 patent is not essential to the 3G/UMTS or the 4G/LTE standard, including, but not limited to, the standard described in 3GPP TS 25.211, 25.221, 25.321, 25.322, 36.213, 36.300, 36.321, 36.322, at least because, by way of non-limiting example, the 3G/UMTS or the 4G/LTE standard does not require the following claim limitation: 11.[e].

306. No claim of the '469 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 11.[e].

307. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '469 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

308. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and

has not infringed any claim of the '469 patent.

COUNT XVIII

Declaration of FRAND Royalties for U.S. Patent No. 6,694,469

309. Apple restates and incorporates by reference each of the allegations set forth above.

310. Qualcomm has contractually obligated to license the '469 patent on FRAND terms and conditions.

311. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '469 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

312. To the extent that the '469 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '469 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '469 patent in this manner.

COUNT XIX

Declaration of Noninfringement of U.S. Patent No. 9,059,819

313. Apple restates and incorporates by reference each of the allegations set forth above.

314. Representative claim 1 of the '819 patent reads as follows (claim element enumeration added for convenience):

Claim 1	
[a]	A method for wireless communications, comprising:
[b]	estimating channel quality information for a plurality of downlink carriers;
[c]	identifying a number of activated carriers in the plurality of downlink carriers; and
[d]	configuring an uplink control channel based at least in part on a number of activated carriers in the plurality, of downlink carriers,
[e]	wherein the uplink control channel is configured using an encoding scheme selected based at least in part on the number of activated carriers while maintaining a constant feedback cycle independent of the number of activated carriers.

315. The '819 patent is not essential to any Apple-practiced 3G/UMTS standard, including, but not limited to, the standard described in 3GPP TS 25.212, at least because, by way of non-limiting example, the 3G/UMTS standard does not require the following claim limitation: 1.[b].

316. No claim of the '819 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 1.[b].

317. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '819 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

318. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '819 patent.

COUNT XX

Declaration of FRAND Royalties for U.S. Patent No. 9,059,819

319. Apple restates and incorporates by reference each of the allegations set forth above.

320. Qualcomm has contractually obligated to license the '819 patent on FRAND terms and conditions.

321. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '819 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

322. To the extent that the '819 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '819 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '819 patent in this manner.

COUNT XXI

Declaration of Noninfringement of U.S. Patent No. 7,096,021

323. Apple restates and incorporates by reference each of the allegations set forth above.

324. Representative claim 12 of the '021 patent reads as follows (claim

element enumeration added for convenience):

Claim 12	
[a]	A terminal of a cellular radio system configures to initiate, while using a first cellular radio system, measurement of the power levels of signals transmitted by at least one second cellular radio system for a decision to change over to said second cellular radio system, comprising:
[b]	means for receiving at least one threshold value transmitted to the terminal by the first cellular radio system,
[c]	means for measuring a power level of a signal transmitted by at least one base station of the first cellular radio system,
[d]	means for comparing the measured power level with said at least one threshold value,
[e]	means for transmitting to the first cellular radio system a request for a free time period in which to perform the measurement, said means being arranged to transmit the request for the free time period in which to perform the measurement only after said measured power level remains below said at least one threshold value, and
[f]	means for initiating the measurement of the power level of the signal of at least one base station of said at least one second cellular radio system during at least one said free time period in which to perform the measurement,
[g]	wherein the terminal maintains radio connection with the first cellular radio system while measuring the second cellular radio system.

325. The '021 patent is not essential to the 3G/UMTS or the 4G/LTE standard, including, but not limited to, the standard described in 3GPP TS 36.214, 36.300, 36.331, at least because, by way of non-limiting example, the 4G/LTE standard does not require the following claim limitation: 12.[e].

326. No claim of the '021 patent has been or is infringed, either directly, contributorily, or by inducement, literally or under the doctrine of equivalents, by Apple or the purchasers of Apple's products through the manufacture, use, importation, sale, and/or offer for sale of Apple's products, at least because, by way of non-limiting example, Apple's products do not satisfy the following claim limitation: 12.[e].

327. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the noninfringement of the '021 patent with respect

to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

328. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests the declaration of the Court that Apple does not infringe and has not infringed any claim of the '021 patent.

COUNT XXII

Declaration of FRAND Royalties for U.S. Patent No. 7,096,021

329. Apple restates and incorporates by reference each of the allegations set forth above.

330. Qualcomm has contractually obligated to license the '021 patent on FRAND terms and conditions.

331. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the FRAND royalty for the '021 patent with respect to Apple's products. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

332. To the extent that the '021 patent is actually essential to a standard and infringed by Apple, then Qualcomm must (a) select as a royalty base, at most, the smallest salable unit substantially embodying the '021 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. See CSIRO, 809 F.3d at 1305; Ericsson, 773 F.3d 1209; Innovatio IP Ventures, 2013 WL 5593609, at *13; Microsoft, 2013 WL 2111217, at *74. As discussed above, Qualcomm has not complied with these requirements, and has not offered FRAND terms, even if Apple has been benefitting from a license between Qualcomm and Apple's CMs. As an alternative to its request for a declaration of noninfringement, Apple is entitled to a judicial declaration that sets a FRAND royalty for the '021 patent in this manner.

COUNT XXIII

Declaration of Unenforceability Due to Exhaustion

333. Apple restates and incorporates by reference each of the allegations set forth above.

334. Qualcomm sells baseband processor chipsets to Apple's CMs through its sales subsidiary or branch, QCT.

335. The sale of Qualcomm chipsets to Apple's CMs is authorized by Qualcomm.

336. Under the patent exhaustion doctrine, this authorized sale of chipsets by Qualcomm to Apple's CMs exhausts Qualcomm's patent rights with respect to all patents embodied in those chipsets. Quanta Computer, 553 U.S. at 638.

337. As described above, Qualcomm has sought, and continues to seek, separate patent license fees from Apple's CMs for patents embodied in the chipsets Qualcomm sells to Apple's CMs, a practice that is prohibited under the patent exhaustion doctrine. Apple's CMs pass on these license fees to Apple in full.

338. Apple pays the entirety of both the license fee and the cost of the chipset itself through the web of agreements described herein. Apple pays the fees that Qualcomm demands through Qualcomm's agreements with Apple's CMs. Despite requests, Qualcomm has refused to give Apple access to the CMs' agreements with Qualcomm.

339. Qualcomm has attempted to evade the patent exhaustion doctrine by reorganizing its corporate structure to create an artificial division between (a) Qualcomm Inc., which holds Qualcomm's patents, (b) Qualcomm's wholly owned subsidiary QTI, and (c) Qualcomm's sales segment QTC, which is operated by QTI and its subsidiaries.

340. Qualcomm, QTI, and QCT should be treated as a single entity for purposes of the patent exhaustion doctrine. Qualcomm's parent and subsidiary

entities share such a unity of interest that the separate personalities of the corporations no longer exist. The purported division between Qualcomm's parent and subsidiary entities is illusory and an attempt to evade the patent laws. Qualcomm, QTI, and QCT collude in refusing to sell chipsets to manufacturers unless they enter into separate patent license agreements, demonstrating a unity of interest of extracting excess royalties for Qualcomm for patents that would otherwise be exhausted through sale. Respecting Qualcomm's corporate separateness will lead to an inequitable result, allowing Qualcomm to continue to "double-dip" and collect excess royalties for patents exhausted through the authorized sale of Qualcomm chipsets.

341. As a result of the acts described in the foregoing paragraphs, there exists a definite and concrete, real and substantial, justiciable controversy between Apple and Qualcomm regarding the exhaustion of Qualcomm's patent rights with respect to patents embodied in baseband processor chipsets sold by Qualcomm to Apple's CMs. This controversy is of sufficient immediacy and reality to warrant the issuance of a Declaratory Judgment.

342. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 et seq., Apple requests a judicial declaration that the sale of Qualcomm's baseband processor chipsets to Apple's CMs exhausts Qualcomm's patent rights for patents embodied in those chipsets.

COUNT XXIV

Monopolization

343. Qualcomm's conduct, as alleged herein, constitutes unlawful monopolization of the market for CDMA and premium LTE chipsets in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

344. The relevant technology markets for Apple's monopolization claims are the markets for the technology embodied in its cellular SEPs. ETSI and other SSOs

have promulgated standards for a number of wireless communication standards, including LTE. By declaring its patents to be essential to those standards, and inducing reliance on its FRAND commitments, Qualcomm acquired monopoly power in the market for the technologies on which each relevant SEP reads, and any ex ante alternatives to those technologies.

345. Before a standard is adopted, all of the alternative technologies to perform each particular function within the standard compete in a relevant product market consisting of all technologies capable of performing that function. Once a SSO selects a particular patented technology to perform a particular function, competition within that technology market is eliminated, as competing technologies are no longer available as alternative means of implementing the standard. As a result, standardization confers monopoly power on patented technologies embodied in the standard, including the relevant standards on which Qualcomm's declared-essential patents read.

346. Alternatives to Qualcomm's declared-essential patents were available in the LTE standard setting process. Qualcomm's FRAND commitments induced ETSI and other SSOs to incorporate the technologies covered by Qualcomm's declared-essential patents in the LTE standard, thereby eliminating competition within the relevant technology markets and conferring monopoly power within those markets on Qualcomm.

347. One relevant product market for the purposes of Apple's monopolization claim is the sale of premium LTE baseband processor chipsets. No other product, including 3G UMTS, CDMA, or low-end or mid-range LTE chipsets, are a substitute for premium LTE chipsets for use in flagship devices such as Apple's iPhone intended for use on carrier networks that require LTE compatibility, and no other product constrains the price of premium LTE chipsets at levels below the monopoly price.

348. Another relevant product market for the purposes of Apple's monopolization claim is the sale of CDMA baseband processor chipsets. No other product, including 3G UMTS or LTE chipsets, are a substitute for CDMA chipsets for use in devices intended for use on carrier networks that require CDMA compatibility, and no other product constrains the price of CDMA chipsets at levels below the monopoly price.

349. The relevant geographic market is worldwide.

350. As alleged above, Qualcomm's monopoly power in the relevant product markets is shown by its high and durable market shares, substantial barriers to entry, and Qualcomm's demonstrated ability to repeatedly force Apple to accept one-sided, non-standard, and unreasonable supply terms.

351. Since at least 2007, Qualcomm has engaged in systematic, continuous conduct to exclude competition in the relevant chipset markets. Qualcomm's anticompetitive and exclusionary conduct is a multi-faceted but synergistic whole, with each of the parts making possible and reinforcing the effects of the others. Qualcomm's anticompetitive conduct is based on the breach of its FRAND commitments for its SEPs, which in turn gives Qualcomm the power to force purchasers of its chipsets to first take a license to its SEPs, threaten disloyal chipset customers with exorbitant SEP royalties, and to tie access to lower (but still far above FRAND) royalties to exclusivity or near-exclusivity in the purchase of Qualcomm chipsets. This conduct has foreclosed Qualcomm's competitors from dealing with Apple, a key purchaser of chipsets, leading to the marginalization and exit of many of those competitors, and to the acquisition and maintenance by Qualcomm of monopoly power. But-for Qualcomm's conduct as alleged herein, rival chipset manufacturers would have become stronger competitors to Qualcomm.

352. Qualcomm's exclusionary conduct includes (i) refusing to deal with competitors, in contravention of its FRAND commitments, (ii) gagging Apple's

ability to challenge Qualcomm's non-FRAND licensing scheme, through paragraph 2 of Section 7 of the BCPA; (iii) tying the purchase of its chipsets to the licensing of its SEPs; and (iv) requiring exclusivity from Apple as a condition of partial relief from Qualcomm's exorbitant and non-FRAND royalties.

353. First, Qualcomm's refusal to offer SEP licenses on FRAND terms to its competitors, as alleged above, is an unlawful refusal to deal with competitors and an act of monopolization under Section 2 of the Sherman Act. A FRAND license would give competing chipset manufacturers the right to market authorized, patent-exhaustive sales of chipsets to Apple and other mobile device suppliers. Qualcomm's failure to license on FRAND terms eliminates the ability of Apple and other mobile device suppliers to purchase chipsets from Qualcomm's competitors without also paying royalties to Qualcomm, and thus exposes Apple and other mobile device suppliers to the threat of exorbitant non-FRAND royalties based on the price of their mobile devices, a threat which Qualcomm uses to force Apple and others to deal exclusively or near-exclusively with Qualcomm on the purchase of chipsets. In this way, Qualcomm's refusal to offer a FRAND license to competitors has a close causal connection with the acquisition and maintenance of monopoly power in the LTE chipset market. But-for Qualcomm's FRAND evasion, Qualcomm would have been forced to offer exhaustive patent licenses to its cellular SEPs on FRAND terms to Intel, Broadcom, and others. An exhaustive patent license to Qualcomm's cellular SEPs would have made these chipset suppliers more effective competitors to Qualcomm in the chipset market, leading to lower prices and enhanced innovation in the chipset market, to the benefit of Apple and ultimately of consumers.

354. There is no legitimate business justification for Qualcomm's strategic refusal to license other chipset manufacturers. Qualcomm for many years licensed such manufacturers. Qualcomm itself insists that device manufacturers do precisely

what Qualcomm refuses to do: grant licenses to their SEPs to Qualcomm's chipset unit. Given the relative paucity of chipset competitors and the fact that Qualcomm's cellular SEPs are generally embodied in the chipset (or components thereof), it would be considerably more efficient for licensing to occur first and foremost at the chipset level.

355. Second, paragraph 2 of Section 7 of the BCPA violates Section 2 of the Sherman Act by shielding Qualcomm's non-FRAND licensing scheme from scrutiny by the judiciary and by government enforcement agencies. The BCPA's gag clause prevented Qualcomm's illegal and extortionate scheme from coming to light for years, and thereby enhanced and extended Qualcomm's monopoly power in the relevant chipset markets.

356. Qualcomm's recent conduct confirms the exclusionary purpose and effect of the BCPA's gag clause. Qualcomm's interpretation and enforcement of the gag clause, penalizing Apple for engaging with competition enforcement agencies, reveals the fundamentally anticompetitive nature of that provision, and its integral role in Qualcomm's multi-faceted scheme to evade FRAND and exclude chipset competitors.

357. Practices that eliminate or make less likely the prospect that invalid or abusive patent licensing schemes will be challenged fall within the scope of the antitrust laws. As the Supreme Court made clear in FTC v. Actavis, Inc., the antitrust and patent laws alike seek to "eliminate unwarranted patent grants so the public will not 'continually be required to pay tribute to would-be monopolists without need or justification.'" 133 S. Ct. 2223, 2233 (2013) (quoting Lear, Inc. v. Adkins, 395 U.S. 653, 670 (1969)).

358. As alleged above, Qualcomm's FRAND commitment is—or at least should have been—an essential bulwark against the exercise of the power conferred on Qualcomm through the standardization process. By evading its FRAND

commitments, Qualcomm gained the power to exclude competition in the chipset market, thereby harming Apple, and by penalizing Apple's ability to challenge Qualcomm's FRAND evasion, Qualcomm maintained that power. Qualcomm's FRAND evasion, and paragraph 2 of Section 7 of the BCPA which protected that evasion against legal challenge, contributed to the maintenance of monopoly power by allowing Qualcomm to continue the anticompetitive and exclusionary conduct made possible by its FRAND evasion. But-for paragraph 2 of Section 7 of the BCPA, Qualcomm's FRAND evasion, and its grasp on monopoly power in the CDMA chipset market and the premium LTE chipset market, would have been eliminated sooner, saving Apple and consumers at least hundreds of millions of dollars.

359. The exclusionary tendency of paragraph 2 of Section 7 of the BCPA is magnified by the fact that Apple was one of the device manufacturers best positioned, and most highly motivated, to challenge Qualcomm's compliance with FRAND. By muzzling Apple, Qualcomm eliminated a key constraint on its ability to evade FRAND and exclude chipset competition, thereby meaningfully contributing to the acquisition and maintenance of monopoly power in the relevant chipset markets.

360. FRAND challenges by implementers of a standard such as Apple are vital to the enforcement of the FRAND commitment. Just as implementers are normally in the best position to determine whether or not an intellectual property right is invalid, implementers are often well positioned to know whether a licensor's terms are compliant with FRAND. Apple's prolific track record as a willing licensee of cellular SEPs from other patentees gives it insight into what FRAND is and how far Qualcomm's terms depart from FRAND, and positioned it well to challenge Qualcomm's FRAND evasion.

361. Similarly, implementers such as Apple generally have the greatest

economic incentive to challenge the terms of Qualcomm's SEP licensing. A successful FRAND challenge by Apple would result directly in a more competitive chipset market, and lower SEP royalties and chipset prices, to the benefit of Apple and consumers. As a large and strategic purchaser of chipsets, Apple had particularly strong incentives in this regard. No other device manufacturer likely would have benefitted as much as Apple from the introduction of additional competition in the chipset market, and for these reasons muzzling Apple through Section 7, paragraph 2 of the BCPA contributed significantly to the maintenance of Qualcomm's non-FRAND licensing and the monopoly power it made possible.

362. By exposing Apple to billions of dollars in additional royalty payments during the term of a FRAND challenge, Section 7, paragraph 2 of the BCPA reduced Apple's ability and incentive to enforce Qualcomm's FRAND commitments.

363. By limiting Apple's ability and incentive to challenge Qualcomm's compliance with FRAND, Section 7, paragraph 2 of the BCPA harmed competition and consumers. Specifically, Section 7, paragraph 2 allowed Qualcomm to continue to charge non-FRAND royalties at the expense of consumers, and to extend its exclusionary and non-FRAND licensing scheme.

364. Section 7, paragraph 2 is outside the scope of Qualcomm's patent rights. The restriction of Apple's freedom to challenge Qualcomm's compliance with FRAND is not an incident of Qualcomm's patent rights. See Bendix Corp. v. Balax, Inc., 421 F.2d 809, 821 (7th Cir. 1970) ("From all this we can only conclude that the right to estop licensees from challenging a patent is not part of the 'limited protection' afforded by the patent monopoly.").

365. Competition agencies around the world have found similar restraints to be anticompetitive. For example, the European Commission found it anticompetitive that a SEP owner insisted, under the threat of the enforcement of an

injunction, that Apple give up its rights to challenge the validity or infringement by Apple's mobile devices of those SEPs. Similarly, the NDRC in 2015 fined Qualcomm nearly $1 billion for anticompetitive conduct that included the imposition of contract terms on device manufacturers that penalized, but did not expressly prevent, them from challenging Qualcomm's SEP licensing. The FTC recently alleged that Qualcomm's anticompetitive business model was premised on just such a practice of coercing customers into abandoning FRAND determinations by the courts or neutral third parties, and filed suit to permanently enjoin the scheme.

366. Third, for many years, Qualcomm has tied together the sale of its baseband processor chipsets and licenses to its SEPs. Qualcomm will sell baseband processor chipsets only to "Authorized Purchasers," who in turn must license a broad portfolio of patent rights, including Qualcomm's SEPs. Under this arrangement, Apple's CMs were required to enter into contracts with Qualcomm conditioning sales of baseband processor chipsets on the license of Qualcomm's patent portfolio, passing licensing fees along to Apple. Due to Qualcomm's refusal to license rival chipset manufacturers, device manufacturers purchasing baseband processor chipsets from Qualcomm's competitors must also become Authorized Purchasers of Qualcomm, despite the fact that they may purchase few or no chipsets from Qualcomm, and similarly take a license to Qualcomm's patent rights, including its SEPs. In essence, Qualcomm makes licenses to its SEPs available to only those who purchase its chipsets, and chipsets available to only those who license its SEPs. In this manner, Qualcomm ensures that all chipset purchasers, whether they buy chipsets from Qualcomm or a competitor, must negotiate with Qualcomm for a license.

367. By ensuring that all chipset purchasers must negotiate a license to Qualcomm's SEPs, regardless of where those chipsets are purchased, Qualcomm

gains the ability to levy a tax—in the form of non-FRAND royalties—on the chipsets sold by Qualcomm's competitors. By giving Qualcomm the ability to levy a tax on the chipsets sold by its competitors, the Authorized Purchaser requirement gives Qualcomm the ability to raise its rivals' costs and make them less effective competitors. In this way, the Authorized Purchaser requirement is exclusionary, giving Qualcomm the power to exclude competition and harm device manufacturers, including Apple, through the imposition of non-FRAND royalties and monopoly overcharges on chipsets.

368. Qualcomm's high nominal royalty rates for its SEPs give handset manufacturers powerful incentives to seek discounts off those rates, particularly manufacturers of feature-rich smartphones and tablets such as Apple, who are disproportionately burdened by Qualcomm's royalty structure. Qualcomm uses the threat of its high nominal royalty rates for its SEPs to force Apple and other device manufacturers to purchase substantial quantities of its baseband processor chipsets, offering in exchange to reduce the royalty for its SEPs to levels closer to, although still far above, the range required by FRAND.

369. Through threatening to impose non-FRAND royalties for its SEPs, and then conditioning discounts off of those confiscatory royalty rates on chipset loyalty, Qualcomm exercises substantial market power. In particular, Qualcomm exercises this power directly, by charging SEP royalties far in excess of FRAND rates, and indirectly, by forcing the purchase of substantial quantities of a second product—baseband processor chipsets—that Apple and other customers would prefer to purchase from Qualcomm's rivals, and by seeking to impose other burdensome terms, including cross-licenses to non-SEPs. Qualcomm's ability to impose a burdensome tie of a license to its SEPs and its baseband processor chipsets is direct evidence of the exercise of monopoly power.

370. Qualcomm ties licenses to its SEPs to purchases of baseband processor

chipsets despite the requests of device manufacturers for the provision of these products on an unbundled basis. Given the opportunity, many device manufacturers, including Apple, would prefer to license Qualcomm's SEPs at FRAND rates, and to purchase baseband processor chipsets from Qualcomm's competitors, rather than be forced to purchase from Qualcomm a bundle comprising a license to Qualcomm's SEPs and substantial quantities of baseband processor chipsets.

371. Qualcomm's tie of licenses to its SEPs and baseband processor chipsets forecloses substantial portions of the baseband processor chipset market to Qualcomm's competitors, particularly the sale of premium LTE chipsets for use in the feature-rich smartphones and tablets disproportionately burdened by Qualcomm's royalty structure. Due to the importance of scale economies in the manufacture and sale of baseband processor chipsets, and the significant commercial validation and learning-by-doing that would be available to rivals but-for Qualcomm's foreclosure of sales to Apple, the foreclosure attributable to Qualcomm's tie of baseband processor chipsets and licenses to its SEPs is substantial and significantly contributes to the creation and maintenance of Qualcomm's monopoly power.

372. There is no procompetitive justification for the Authorized Purchaser requirement. Other suppliers convey intellectual property rights in the sale of the products embodying that intellectual property, as does Qualcomm in markets where it lacks monopoly power.

373. Fourth, since 2011, Qualcomm has conditioned billions of dollars in lump sum payments, discounts, rebates, and royalty rebates and caps on the express agreement by Apple to purchase chipsets for smartphones and tablet computers exclusively from Qualcomm, through the TA and the FATA. It has done so in a variety of ways, including (a) specific forward-looking loyalty rebates on chipset prices that are expressly conditioned on exclusivity; (b) clawback of previously paid

rebates if Apple uses any non-Qualcomm chipsets; and (c) a royalty cap implicitly conditioned on chipset exclusivity. [**Exhibit E,** TA § 1.5; **Exhibit F**, FATA §§ 1.3A(c), 1.3B(b), 1.5, 1.5A.]

374. Until recently, these payments have precluded Apple from cost-effectively shifting even a portion of its chipset purchases from Qualcomm to Qualcomm's competitors, because shifting even a small portion of Apple's purchases to a competitor would result in lost price and royalty concessions on all purchases from Qualcomm (including in many cases price concessions on past purchases), including on many products and product lines that Qualcomm's competitors could not supply at all (i.e., CDMA chipsets) or in sufficient quantities to meet all of Apple's needs (e.g., premium LTE chipsets). Although Apple has for many years been ready and able to switch a smaller portion of its baseband processor chipset purchases (e.g., for non-CDMA iPads) to Qualcomm's rivals, Qualcomm's imposition of exclusivity has prevented Apple from switching suppliers on a less than full-line basis, even with non-Qualcomm chipsets priced substantially lower than comparable Qualcomm chipsets.

375. But-for these exclusivity conditions, to which Apple was forced to agree to avoid paying royalty rates on all purchases of chipsets practicing Qualcomm's SEPs that were well above FRAND levels, Apple would have shifted at least a portion of its chipset purchases to Qualcomm's rivals, thereby making those rivals more effective competitors to Qualcomm in the future, and providing to Apple the benefit of a more competitive baseband processor chipset market.

376. However, until recently, these penalties have made it economically infeasible for Apple to purchase any baseband processor chipsets from Qualcomm's competitors. It is not feasible to switch a substantial portion of Apple's requirements to a new supplier all at once, or even over a short period of time, and therefore Qualcomm's rivals could not compete on the all-or-nothing terms imposed

by Qualcomm.

377. As a result, from Fall 2011 through Spring 2016, all of Apple's new cellular devices used Qualcomm chipsets exclusively. Apple used only Qualcomm baseband processor chipsets in the iPhone 4s, iPhone 5, iPhone 5s, iPhone 5c, iPhone 6, iPhone 6 Plus, iPhone 6s, iPhone 6s Plus, and iPhone SE and in cellular-enabled models of the iPad third generation, iPad fourth generation, iPad Air, iPad Air 2, iPad Minis, and iPad Pros.

378. The anticompetitive effects of Qualcomm's conduct include the elevation of CDMA and premium LTE chipset prices above competitive levels, the imposition on Apple of onerous, unreasonable, and costly supply terms, the suppression of innovation in the chipset market, and the elimination of Apple's ability to choose its supplier of chipsets in a competitive market.

379. Foreclosure of Apple was competitively significant due to Apple's status as a high-volume purchaser of CDMA and premium LTE chipsets, as well as the significant benefits that come from being a component supplier to Apple. Those benefits include the opportunity to learn about consumer demand from Apple, to learn about Apple's demanding technical requirements, to sell large volumes of chipsets to a single buyer for a single model sold world-wide, and the commercial validation that comes from supplying components to Apple. By foreclosing competitors from dealing with Apple, Qualcomm deprived those competitors of these benefits, cementing its grasp on monopoly power in the CDMA and premium LTE chipset markets.

380. There is no procompetitive justification for the exclusivity terms or royalty rebates. Qualcomm's imposition of exclusivity was not reasonably necessary to protect any investments that Qualcomm made in customizing its products for Apple, for which Qualcomm separately charges Apple, or to encourage Qualcomm to make available sufficient supply for Apple's products.

COUNT XXV

Violations of the California Unfair Competition Law

381. Apple restates and incorporates by reference each of the allegations set forth above.

382. By the acts alleged, Qualcomm has engaged in unfair competition within the meaning of California Business & Professional Code § 17200, et seq., (the "Unfair Competition Law" or "UCL"), which prohibits "unlawful, unfair or fraudulent" business acts and practices.

383. For example, it is unlawful under the Unfair Competition Law for Qualcomm to withhold nearly a billion dollars in BCP Payments in retaliation for Apple's engagement with competition and other regulatory bodies. The interpretation that Qualcomm is advancing—importing a term into the BCPA that would allow Qualcomm to withhold payments based on its view of the truth or falsity of a statement and to retaliate against Apple for responding to agency requests, for example—violates public policy by discouraging Apple's cooperation with agency investigations. In addition, by discouraging Apple from cooperating with antitrust agency investigations, which by definition protect consumers from anticompetitive conduct, Qualcomm is violating the antitrust laws. Columbia Metal Culvert Co. v. Kaiser Aluminum & Chem. Corp., 579 F.2d 20, 30–32 (3d Cir. 1978) (holding that retaliation against customer for placing orders to competitor could constitute monopolization or attempted monopolization in violation of Section 2 of the Sherman Act).

384. Moreover, Qualcomm's withholding of nearly a billion dollars in BCP Payments is unlawful because Qualcomm's interpretation of that provision and actions in withholding payment constitute an unreasonable penalty within the meaning of California Civil Code § 1671(b). As Qualcomm is interpreting it, the second paragraph of Section 7 of the BCPA is an unreasonable liquidated damages

provision because the BCP Payments that Qualcomm withheld bear no reasonable relationship to the range of actual damages that Qualcomm or Apple could have anticipated would flow from a breach at the time the contract was made. Thus, Qualcomm's interpretation creates an unlawful penalty against Apple, and Apple has suffered harm as a result.

385. In addition, as alleged above, Qualcomm has unlawfully monopolized the markets for CDMA chipsets and premium LTE chipsets, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2. This action "threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition." Cel-Tech Comm'ns, Inc. v. L.A. Cellular Tel. Co., 973 P.2d 527, 544 (Cal. 1999).

386. As another example, Qualcomm engaged in unlawful conduct by refusing to offer licenses consistent with its FRAND commitments with respect to the Patents-in-Suit, despite its commitments to, among other SSOs, ETSI, and despite the market's reliance on Qualcomm's FRAND commitments. Believing Qualcomm was acting in good faith, these SSOs agreed to incorporate Qualcomm's patents into various mobile wireless standards, including standards for LTE. Now, having obtained the dominant position that comes with having its patents declared essential, Qualcomm seeks and has sought to use its dominant position to exact the very unfair royalties it promised to eschew. Qualcomm seeks and has sought to use its dominant position in the supply of CDMA and premium LTE chipsets to exact unfair, unreasonable, and discriminatory royalties.

387. Qualcomm's unlawful business acts and practices significantly threaten and harm competition in the market for mobile wireless handsets, tablets, and other CDMA- and LTE-compliant products, in California and elsewhere, thereby causing injury to consumers. These threatened injuries include the inevitable passing on to

consumers of improper royalties demanded by Qualcomm.

388. Qualcomm's unlawful and deceptive business acts and practices are a direct and proximate cause of injury to Apple. Apple has suffered harm in California and elsewhere as a supplier of handsets, tablets, and other CDMA- and LTE-compatible products. Further, Apple has suffered or faces the threat of loss of profits, loss of customers and potential customers, and loss of goodwill and product image in the market for CDMA- and LTE-compatible products.

389. Apple thus seeks an injunction pursuant to Section 17203 of the California Business and Professions Code prohibiting Qualcomm from engaging in these unlawful and deceptive business practices in the future, including an injunction preventing Qualcomm from retaliating against Apple for its lawful engagement with regulatory authorities, and other remedies available at law and equity for the harm caused by Qualcomm's conduct.

JURY DEMAND

Apple demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Apple prays for relief, as follows:

A. Adjudge and decree that Qualcomm is liable for breach of contract;

B. Adjudge and decree that Qualcomm breached the implied covenant of good faith and fair dealing;

C. Adjudge and decree that Qualcomm must pay the remaining BCP Payments, or damages in the amount of the accrued but unpaid payments, plus interest;

D. Adjudge and decree that Apple did not breach its obligations under the BCPA;

E. Adjudge and decree that each of the Patents-in-Suit is not essential to any Apple-practiced 3G/UMTS and/or 4G/LTE standard and is not

infringed by Apple, or the purchasers of Apple's products, through the making, using, offering to sell, sale, or import of Apple's products that support 3G/UMTS and 4G/LTE;

F. As an alternative, for any of the Patents-in-Suit found to be actually essential to any Apple-practiced 3G/UMTS and/or 4G/LTE standard and infringed by Apple, adjudge and decree that Qualcomm has not offered Apple a non-discriminatory license, with reasonable rates and with reasonable terms and conditions;

G. As an alternative, for any of the Patents-in-Suit found to be actually essential to any Apple-practiced 3G/UMTS and/or 4G/LTE standard and infringed by Apple, adjudge, set, and decree a FRAND royalty that (a) uses a royalty base of (at most) the smallest salable 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 the patent;

H. As an alternative, if any of the Patents-in-Suit found to be actually essential to any Apple-practiced 3G/UMTS and/or 4G/LTE standard and infringed by Apple, declare that the Patents-in-Suit are unenforceable as against Apple for patent exhaustion, where those patents are embodied in Qualcomm chipsets used in Apple products;

I. Enjoin Qualcomm from further demanding excessive royalties from Apple that are not consistent with Qualcomm's obligations;

J. Order Qualcomm to disgorge non-FRAND royalties that Qualcomm previously extracted from Apple, including royalties paid through Apple's CMs, and pay such unjust gain to Apple;

K. Adjudge and decree that Qualcomm 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;

L. Adjudge and decree that Qualcomm has violated Section 2 of the Sherman Act and enjoin Qualcomm from further violations of that statute;

M. Adjudge and decree that Qualcomm violated the California Unfair Competition Law and enjoin Qualcomm from further violations of that Law;

N. Adjudge and decree that Qualcomm may not interrupt chipset supplies relating to Apple's iPhones and iPads;

O. Enjoin Qualcomm from taking any adverse or legal action against Apple's CMs related to the allegations in the Complaint;

P. Enjoin Qualcomm from imposing or enforcing any unlawful and/or non-FRAND terms and conditions relating to Apple's iPhones and iPads;

Q. Enjoin Qualcomm from further unlawful actions;

R. Enter judgment awarding Apple its expenses, costs, and attorneys' fees in accordance with Rule 54(d) of the Federal Rules of Civil Procedure;

S. Award reasonable attorneys' fees;

T. Award costs of suit; and

U. Award such other and further relief as the Court deems just and proper.

Dated: January 20, 2017

Respectfully submitted,

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