IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

CORE WIRELESS LICENSING	
S.A.R.L.)
) CIVIL ACTION NO
Plaintiff,)
) JURY TRIAL DEMANDED
v.)
)
LG ELECTRONICS, INC., AND LG)
ELECTRONICS MOBILECOMM)
U.S.A., INC.)
)
Defendants.)

CORE WIRELESS LICENSING S.A.R.L.'S COMPLAINT FOR BREACH OF CONTRACT, DECLARATORY RELIEF, AND PATENT INFRINGEMENT

Plaintiff, Core Wireless Licensing S.a.r.l. ("Core Wireless"), for its Complaint against Defendants LG Electronics, Inc. ("LGE") and LG Electronics MobileComm U.S.A., Inc. ("LG Mobile") (collectively, "LG Defendants") alleges:

THE PARTIES

- 1. Core Wireless is a corporation duly organized and existing under the laws of the Grand Duchy of Luxembourg, having a principal place of business at 16, Avenue Pasteur L-2310 Luxembourg. Core Wireless has a regular and established place of business and does business relating to the patents-in-suit in connection with its wholly-owned subsidiary, Core Wireless Licensing Ltd. ("Core Wireless USA"), a corporation duly organized and existing under the laws of the State of Texas, having a principal place of business at 5601 Granite Parkway, Suite 1300, Plano, TX 75024, which is within the Eastern District of Texas. All pertinent documents and discovery relevant to this matter either reside at Core Wireless USA's local address or will be produced at that address. Core Wireless is the owner of record of the patents involved in this action.
- 2. Defendant LG Electronics, Inc. is a foreign corporation organized and existing under the laws of the Republic of Korea with its principal place of business in Seoul, South Korea. On information and belief, this Defendant may be served with process at its principal place of business at LG Twin Towers, 128 Yeoui-daero, Yeoungdeungpo-gu, Seoul 150-721, Republic of Korea. LGE designs, makes, and sells many different products world-wide for consumer use including wireless mobile communications devices such as smartphone handsets and tablet computers. LGE maintains operations in many countries throughout the world. LGE is a parent corporation of Defendant LG Mobile.
- 3. Defendant LG Electronics MobileComm U.S.A., Inc. (d/b/a LG Mobile) is a wholly-owned subsidiary of LGE and is a California corporation with its principal place of

business at 10101 Old Grove Road, San Diego, California 92131. This Defendant may also be served with process in Texas through its registered agent, National Registered Agents, Inc., 1999 Bryan Street, Suite 900, Dallas, Texas 75201. LG Mobile distributes a variety of wireless mobile communication devices, including without limitation smartphone handsets and tablet computers, to customers throughout the United States. On information and belief, LG Mobile has imported such wireless mobile communication devices manufactured by LGE from South Korea.

JURISDICTION

- 4. Certain claims in this action arise under the patent laws of the United States.

 Accordingly, this Court has subject matter jurisdiction over the patent claims pursuant to 28

 U.S.C. §§ 1331 and 1338(a).
- 5. This Court has subject matter jurisdiction over the breach of contract claim pursuant to 28 U.S.C. §§ 1332 and 1367. The matter in controversy exceeds the sum or value of \$75,000, exclusive of interest and costs, and is between citizen of a State and citizen or subject of a foreign state.
- 6. This Court has subject matter jurisdiction over the declaratory judgment causes of action pursuant to 28 U.S.C. §§ 2201 and/or 2202. An actual case or controversy has arisen between the parties that is definite and concrete and which touches the legal relations of the parties having adverse legal interests.
- 7. This Court has personal jurisdiction over the LG Defendants because each does business in the State of Texas and in this judicial district and/or has infringed or caused infringement in the State of Texas and in this judicial district.
- 8. This Court has personal jurisdiction over the LG Defendants because the LG Defendants have established minimum contacts with the Eastern District of Texas. The LG

Defendants manufacture (directly or indirectly through third party manufacturers) and/or assemble products that are and have been used, offered for sale, sold, and purchased in the Eastern District of Texas. LG Defendants, directly and/or through their distribution network, place wireless mobile communication devices within the stream of commerce, which stream is directed at this district, with the knowledge and/or understanding that those products will be sold in the State of Texas, including in the Eastern District of Texas. LGE's largest single distribution point in the United States is located in the Fort Worth, Texas area where LGE is consolidating operations in a 1.2 million-square-foot distribution hub. LGE also employs individuals in the Dallas/Fort Worth area and elsewhere in the State of Texas. Jurisdiction over LG Defendants in this matter is also proper inasmuch as LG Defendants have voluntarily submitted to the jurisdiction of the courts by commencing litigations within the State of Texas, by LG Mobile registering with the Texas Secretary of State's Office to do business in the State of Texas, and by LG Mobile appointing a registered agent. Therefore, the exercise of jurisdiction over LG Defendants is appropriate under the applicable jurisdictional statutes and would not offend traditional notions of fair play and substantial justice.

VENUE

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 and 1400(b) because LG Defendants have committed, and continue to commit, acts of infringement, including providing wireless mobile communication devices that are used, offered for sale, sold, and have been purchased in the State of Texas, including in the Eastern District of Texas.

FACTUAL ALLEGATIONS

I. PATENTS-IN-SUIT

10. United States Patent No. 5,946,634 ("'634"), entitled *Mobile Communications*, was duly and lawfully issued August 31, 1999. Core Wireless is the current owner of all rights,

title, and interest in and to the '634 patent. LGE had actual notice of the '634 patent no later than March 6, 2013. A true and correct copy of the '634 patent is attached hereto as Exhibit 1.

- 11. United States Patent No. 6,266,321 ("'321"), entitled *Method For Transmitting*Two Parallel Channels Using Code Division And An Apparatus Realizing The Method, was duly and lawfully issued July 24, 2001. Core Wireless is the current owner of all rights, title, and interest in and to the '321 patent. LGE had actual notice of the '321 patent no later than April 18, 2012. Upon information and belief, LGE had actual notice of the '321 patent as early as March 26, 2012. A true and correct copy of the '321 patent is attached hereto as Exhibit 2.
- 12. United States Patent No. 6,477,151 ("'151"), entitled *Packet Radio Telephone*Services, was duly and lawfully issued November 5, 2002. Core Wireless is the current owner of all rights, title, and interest in and to the '151 patent. Upon information and belief, LGE had actual notice of the '151 patent as early as August 9, 2013. A true and correct copy of the '151 patent is attached hereto as Exhibit 3.
- 13. United States Patent No. 6,633,536 ("'536"), entitled *Signalling In A Digital Mobile Communications System*, was duly and lawfully issued October 14, 2003. Core Wireless is the current owner of all rights, title, and interest in and to the '536 patent. LGE had notice of the '536 patent no later than March 6, 2013. A true and correct copy of the '536 patent is attached hereto as Exhibit 4.
- 14. United States Patent No. 6,978,143 ("'143"), entitled *Method And Arrangement* For Managing Packet Data Transfer In A Cellular System, was duly and lawfully issued December 20, 2005. Core Wireless is the current owner of all rights, title, and interest in and to the '143 patent. LGE had actual notice of the '143 patent no later than April 18, 2012. Upon

information and belief, LGE had actual notice of the '143 patent as early as March 26, 2012. A true and correct copy of the '143 patent is attached hereto as Exhibit 5.

- 15. United States Patent No. 7,383,022 ("'022"), entitled *Mobile Equipment Based* Filtering For Packet Radio Service, was duly and lawfully issued June 3, 2008. Core Wireless is the current owner of all rights, title, and interest in and to the '022 patent. LGE had actual notice of the '022 patent no later than May 23, 2012. A true and correct copy of the '022 patent is attached hereto as Exhibit 6.
- 16. United States Patent No. 7,529,271 ("'271"), entitled *Method And Device For Transferring Data Over GPRS Network*, was duly and lawfully issued May 5, 2009. Core Wireless is the current owner of all rights, title, and interest in and to the '271 patent. LGE had actual notice of the '271 patent no later than April 18, 2012. Upon information and belief, LGE had actual notice of the '271 patent as early as March 26, 2012. A true and correct copy of the '271 patent is attached hereto as Exhibit 7.
- 17. United States Patent No. 7,599,664 ("'664"), entitled *Mobile Equipment Based*Filtering For Packet Radio Service (PRS), was duly and lawfully issued October 6, 2009. The '664 patent is a continuation of the application that matured into the '022 patent identified above.

 Core Wireless is the current owner of all rights, title, and interest in and to the '664 patent. LGE had actual notice of the '664 patent no later than May 23, 2012. A true and correct copy of the '664 patent is attached hereto as Exhibit 8.
- 18. United States Patent No. 7,782,818 ("'818"), entitled *System And Method For Providing A Connection In A Communication Network*, was duly and lawfully issued August 24,

 2010. Core Wireless is the current owner of all rights, title, and interest in and to the '818 patent.

LGE had actual notice of the '818 patent no later than March 6, 2013. A true and correct copy of the '818 patent is attached hereto as Exhibit 9.

- 19. United States Patent No. 7,804,850 ("'850"), entitled *Slow MAC-E For*Autonomous Transmission In High Speed Uplink Packet Access (HSUPA) Along With Service

 Specific Transmission Time Control, was duly and lawfully issued September 28, 2010. Core

 Wireless is the current owner of all rights, title, and interest in and to the '850 patent. LGE had actual notice of the '850 patent no later than May 23, 2012. A true and correct copy of the '850 patent is attached hereto as Exhibit 10.
- 20. United States Patent No. 8,165,049 ("'049), entitled *Filtering of Electronic Information To Be Transferred To A Terminal*, was duly and lawfully issued April 24, 2012.

 The '049 patent is a continuation of an application filed on July 26, 2005, now U.S. Patent No. 7,729,301, which is a continuation of an application filed on December 1, 2000, now U.S. Patent No. 6,947,396. Core Wireless is the current owner of all rights, title, and interest in and to the '049 patent. A true and correct copy of the '049 patent is attached hereto as Exhibit 11.
- 21. United States Patent No. RE44,828 E ("'828"), entitled *Method and Arrangement For Choosing A Channel Coding And Interleaving Scheme For Certain Types of Packet Data Connections*, was duly and lawfully issued April 8, 2014. The '828 patent is a reissue of U.S. Patent No. 7,773,708 originally issued August 10, 2010. Core Wireless is the current owner of all rights, title, and interest in and to the '828 patent. A true and correct copy of the '828 patent is attached hereto as Exhibit 12.
- 22. United States Patent No. 8,792,398 ("'398"), entitled *Filtering of Electronic Information To Be Transferred To A Terminal*, was duly and lawfully issued July 29, 2014. The '398 patent is a continuation of the '049 patent identified above. Core Wireless is the current

owner of all rights, title, and interest in and to the '398 patent. A true and correct copy of the '398 patent is attached hereto as Exhibit 13.

II. CORE WIRELESS'S STANDARD-ESSENTIAL PATENTS

- 23. The '634, '321, '151, '536, '143, '022, '271, '664, '818, '850, '049, '828, and '398 patents ("patents-in-suit") are among over 1,200 Standard-Essential Patents owned by Core Wireless. Core Wireless became the owner of these Standard-Essential Patents on or around September 1, 2011, obtaining all right, title and interest in, to, and under the patents-in-suit, including without limitation all legal rights of the prior owner of the patents, Nokia Corporation ("Nokia"), and further including enforcement rights.
- 24. The patents-in-suit were originally invented by, procured by, or assigned to Nokia, which is and has been a member of the European Telecommunications Standards Institute ("ETSI"), a non-profit Standard Setting Organization headquartered in France.
- 25. ETSI is and has been involved in standardization of the most recent generations of mobile communications standards, including Global System for Mobile ("GSM") also known as 2G, GSM improvements known as GSM Packet Radio Service ("GPRS") and Enhanced Data Rates for GSM Evolution, the third generation of GSM technology known as Universal Mobile Telecommunications System ("UMTS") or 3G, and Long-Term Evolution ("LTE") known as 4G, which is anticipated to become the first global mobile communications standard.
- 26. Nokia declared before ETSI that the patents-in-suit are essential to one or more of the mobile communications standards developed or completed by ETSI including without limitation the GSM/GPRS, UMTS, and LTE standards. As a result, pursuant to ETSI's Intellectual Property Rights ("IPR") Policy, Nokia had an obligation to license the patents-in-suit on fair, reasonable, and non-discriminatory ("FRAND") terms.

- 27. Nokia also declared before ETSI that the over 1,200 Standard-Essential Patents owned by Core Wireless are essential to one or more of the mobile communications standards developed or completed by ETSI including without limitation the GSM/GPRS, UMTS, and/or LTE standards. Accordingly, Nokia also had an obligation to license those patents on FRAND terms.
- 28. Core Wireless, as the present owner of a portfolio of ETSI Standard-Essential Patents, has voluntarily agreed to grant licenses under FRAND terms to willing licensees who negotiate in good faith. Core Wireless publicly affirmed its ETSI commitments by submitting its own FRAND undertaking to ETSI.
- 29. ETSI's IPR Policy Section 3.2 states that IPR holders are to be adequately and fairly rewarded for use of their IPRs in the implementation of standards and technical specifications. A true and correct copy of ETSI's IPR Policy is attached hereto as Exhibit 14.

III. CORE WIRELESS'S ATTEMPTS TO LICENSE LG DEFENDANTS

30. LG Defendants implement the GSM/GPRS, UMTS, and/or the LTE standards in certain of their wireless mobile communications devices, including without limitation LG Defendants' devices marketed and sold within LG Defendants' Optimus, G, L, F, and Nexus device families, its G Pad family of tablets, and other exemplary products including without limitation the Apex US740, Arena GT950, Attune UN270, Connect 4G MS840, CF360, CU920, D820, Dlite GD570, DoublePlay C729, Elite LS696, Enact VS890, Enlighten VS700, Encore GT550, Escape P870, Esteem MS910, Eve GW620, Fathom VS750, Genesis US760, GS170, GU292, Intuition VS950, Incite CT810, Invision CB360, LG420G, Lucid VS840, Lucid 2 VS870, Lucid 3 VS876, Mach LS860, Marquee LG855, Motion 4G MS770, MyTouch LGE739BK, Neon GT365, Neon 2 GW370, Nexus 5 LG D820, Nitro P930, Phoenix P505, Prime GS390, Remarg LN240, Revolution VS910, Rumor Reflex S LN272S, Shine CU720,

Shine 2 GD710, Sentio GS505, Spectrum VS920, Spectrum 2 VS930, Spirit 4G MS870, Splendor US370, Thrill 4G P925, Thrive P506, Venice LG370, Viper LS840, Volt LS740, Vortex VS660, Vu CU915, Vu Plus GR700, Xenon GR500, and GT540G ("LG Standard-Compliant Products") that infringe one or more of the patent claims involved in this action.

- 31. At least one LGE subsidiary, LG Electronics Mobilecomm France ("LG Mobile France"), is a member of ETSI. The term "MEMBER" is defined in ETSI's IPR Policy Section 15 as including "AFFILIATES." Per the ETSI IPR Policy definition, an "AFFILIATE" of a first legal entity means any other legal entity directly or indirectly owning or controlling the first legal entity, or under the same direct or indirect ownership or control as the first legal entity, or directly or indirectly owned or controlled by the first legal entity for so long as such ownership or control lasts. Upon information and belief, LG Defendants are both AFFILIATES of LG Mobile France. Accordingly, LG Defendants are or should be aware that they are required to follow ETSI's IPR Policy in connection with all of their relevant activities, and LG Mobile France's ETSI obligations extend to the LG Defendants.
- 32. For nearly the past three years, and in the course of at least nine in-person technical and business meetings, Core Wireless has presented LGE with infringement allegations concerning 19 patents, and attempted to negotiate FRAND license terms with LGE related to Core Wireless's Standard-Essential Patents, including the patents-in-suit. During that time, LGE has refused to make a single counteroffer for a license to any of Core Wireless's Standard-Essential Patents, including the patents-in-suit.
- 33. As soon as Core Wireless became the owner in September 2011 of the approximately 2000 patents from Nokia, including approximately 1,200 Standard-Essential Patents and another approximately 800 implementation patents, Core Wireless contacted LGE

representatives offering an agreement whereby the parties would be prohibited from initiating any lawsuit or any other legal or administrative action worldwide for approximately six months to insure the parties were free to negotiate a portfolio license in peace and good faith. LGE rejected Core Wireless's offer within a week.

- 34. On March 26, 2012, Core Wireless sent a formal notice letter to one of LG Defendants' legal representatives in the United States, Mr. Roger S. Borovoy. That letter identified seven patents the LG Defendants are believed to infringe, including the '321, '143, and '271 patents asserted herein. The letter also listed exemplary LGE products infringing each patent claim identified. Upon information and belief, Mr. Borovoy passed the letter on to LG Defendants on or around March 26, 2012. At Mr. Borovoy's request, on April 18, 2012, Core Wireless sent a substantively identical notice letter to Mr. JungSheek Juhn, LGE's Intellectual Property Director in Korea. Both letters requested a meeting between the parties.
- 35. On May 23, 2012, nine LGE and Core Wireless representatives met in person at LGE in Seoul, South Korea. At that meeting, Core Wireless's representatives presented infringement claim charts concerning seven patents identified in the notice letters, including the '321, '143, and '271 patents asserted herein. Core Wireless also provided LGE with infringement claim charts for six additional patents, including the '022, '664, and '850 patents asserted herein.
- 36. On August 29, 2012, eleven of the parties' representatives again met in person at LGE in Seoul, South Korea. The parties continued technical discussions concerning the patents Core Wireless had identified, including six of the patents asserted herein. At the same meeting, Core Wireless confirmed that it would honor its ETSI FRAND licensing obligations.

- 37. On November 29, 2012, eleven of the parties' representatives again met in person at LGE in Seoul, South Korea and continued the parties' technical presentations on the 13 patents previously identified.
- 38. On March 6, 2013, ten of the parties' representatives met in person in Redwood City, California. Core Wireless presented infringement claim charts on six additional patents, including the '536, '634, and '818 patents asserted herein. Core Wireless also informed LGE that it had offered to license its standard-essential patent portfolio to Apple at a FRAND rate. Core Wireless then offered to license its standard-essential patent portfolio at the same FRAND rate to LGE. LGE did not agree to take a license.
- 39. On July 18, 2013 and September 26, 2013, the parties' representatives met face-to-face for a fifth and sixth time at LGE in Seoul, South Korea to continue discussing technical and business issues. LGE did not provide any counteroffer during either meeting or agree to take a license.
- 40. On December 11, 2013, the parties' representatives met face-to-face for a seventh time in Washington, D.C. At that meeting, Core Wireless made a second licensing offer at a FRAND rate to LGE based upon a methodology different from Core Wireless's first offer, but fully consistent with the principles of FRAND licensing. LGE did not accept the offer, provide any counteroffer, or agree to take a license.
- 41. On February 14, 2014, the parties' representatives met in person for an eighth time at LGE in Seoul, South Korea to continue their business negotiations. LGE indicated that it was not in a position to provide any counteroffer and refused to provide one.
- 42. On June 19, 2014, the parties' representatives met for a ninth time at LGE in Seoul, South Korea. The meeting lasted for less than an hour and LGE made it clear that it had

no intention of making any counteroffer for a license to Core Wireless's Standard-Essential Patents, including to the patents-in-suit.

- 43. In a letter dated August 25, 2014, LGE confirmed having received two offers from Core Wirless for a license on the whole of the portfolio of essential patents. Consistent with LGE's actions during the June 19, 2014 meeting, the letter still made no counteroffer.
- 44. Over the course of the past nearly three years, LGE has repeatedly engaged in tactics and made requests intended to stall negotiations, including for example, indicating that LG Defendants' representatives were not available several months in advance of a proposed meeting, and generally seeking a maximum interval between successive meetings. Core Wireless has accommodated LG Defendants' requests and delays to the best of its ability. The parties have not met again since June 19, 2014, when LGE told Core Wireless it had no intention of making any counteroffer for a license.
- 45. To date, LG Defendants have provided Core Wireless no compensation in return for a license to use the patents-in-suit or any of Core Wireless's Standard-Essential Patents.
- 46. LG Defendants have indicated by both their actions and statements that litigation is preferable to LG Defendants having to fulfill their ETSI obligations and take a license to Core Wireless's Standard-Essential Patents, including the patents-in-suit.

FIRST COUNT (Breach of LG Defendants' Contractual Obligations to ETSI)

- 47. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-46 of this Complaint as though fully set forth herein.
- 48. ETSI provides its members with the benefit of being involved in the setting of standards that affect entities involved in providing products and/or services related to mobile communications. ETSI's activities are closely aligned with market needs and there is wide

acceptance of its standards. Accordingly, mobile communications businesses benefit from ETSI membership by being able to provide input on issues that may have financial impacts on their businesses.

- 49. As a condition of receiving the benefits that ETSI provides to its members and affiliates, ETSI members and affiliates must comply with ETSI's Directives, also known as Bylaws. ETSI's IPR Policy is found in Annex 6 of the ETSI Rules of Procedures, making the rights and obligations specified by the IPR Policy binding on all ETSI members and affiliates.
- 50. LG Defendants are bound by ETSI's IPR Policy by virtue of LG Mobile France's ETSI membership and participation in the organization from which LG Defendants derive a benefit.
- 51. ETSI's IPR Policy requires IPR patent holders to be adequately and fairly rewarded for use of their IPRs in the implementation of standards and technical specifications.
- 52. ETSI's IPR Policy states that any violation of the Policy by a member, including affiliates, shall be deemed a breach of that member's obligations to ETSI.
- 53. Core Wireless, as an owner of Standard-Essential Patents committed to ETSI IPR FRAND licensing obligations, is an intended third-party beneficiary of LG Defendants' contract with ETSI.
- 54. LG Defendants' refusal for nearly three years to negotiate in good faith a FRAND rate for Core Wireless's patents-in-suit and its other Standard-Essential Patents is a violation of ETSI's IPR Policy.
- 55. LG Defendants have breached their contractual obligations to ETSI, which is causing harm to Core Wireless by failing to financially compensate Core Wireless for its

patented technology essential to the standards used by LG's Standard-Compliant Products. Such compensation is required by LG Defendants' contract with ETSI.

SECOND COUNT (Declaratory Judgment that LG Defendants Are Unwilling Licensees)

- 56. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-55 of this Complaint as though fully set forth herein.
- 57. A substantial controversy exists between Core Wireless and LG Defendants of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 58. Core Wireless and LG Defendants have adverse legal interests because LG Defendants continue to use Core Wireless's patented technology without a license, constituting infringement, and without paying for a license Core Wireless has offered and is obligated to provide to LG Defendants.
- 59. For nearly three years LG Defendants have demonstrated an unwillingness to negotiate a FRAND royalty rate with Core Wireless in good faith by, among other things, unreasonably stalling negotiations, rejecting Core Wireless's FRAND offers, and refusing to provide any counteroffers.
- 60. At the same time, LG Defendants have profited by virtue of their use of Core Wireless's Standard-Essential Patents, including the patents-in-suit, to the detriment of Core Wireless.
- 61. The longer LG Defendants are allowed to engage in their infringing activity without consequence or paying for a license, the lower the value of the patents-in-suit and Core Wireless's Standard-Essential Patents may become as licensing assets, at least in part, because the period before each patent expires is decreasing and LG Defendants' delay provides

incentives for other potential licensees to refuse to pay for a license, frustrating Core Wireless's rights pursuant to ETSI's IPR Policy.

62. As a direct, proximate, and foreseeable result of LG Defendants' refusal to negotiate in good faith a FRAND royalty with Core Wireless, substantively respond to Core Wireless's FRAND royalty offers, or demonstrate any willingness to take a license during LG Defendants' nearly three-year hold-out period, Core Wireless has been harmed and continues to suffer harm, including without limitation by being denied the adequate and fair reward set forth by the ETSI IPR Policy for use of Core Wireless's Standard-Essential Patents and being forced to resolve this matter through unnecessary litigation in which Core Wireless is required to pay what should be unnecessary attorneys' fees and expenses.

THIRD COUNT

(Declaratory Judgment of a FRAND Royalty Rate for Core Wireless's Standard-Essential Patents)

- 63. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-62 of this Complaint as though fully set forth herein.
- 64. To the extent LG Defendants are found to be entitled to a license on FRAND terms despite the fact that they are unwilling licensees and have violated their contractual obligations to ETSI to negotiate for a license in good faith, Core Wireless is entitled at a minimum to a FRAND royalty rate, and Core Wireless seeks the Court's determination of the FRAND royalty rate.
- 65. ETSI's Guide on IPRs states in Section 4.3 that national courts of law have the sole authority to resolve IPR disputes. A true and correct copy of the "ETSI Guide on Intellectual Property Rights (IPRs) Version adopted by Board #94 on 19 September 2013" is attached hereto as Exhibit 15.

- 66. Core Wireless's rights continue to remain uncertain in the absence of Court intervention. On the one hand, Core Wireless has an obligation to license its Standard-Essential Patents on FRAND terms, it has made FRAND licensing offers to the LG Defendants, and LG Defendants have refused to accept any offer, provide any counteroffer, or further negotiate in good faith. On the other hand, Core Wireless is entitled to compensation pursuant to ETSI's IPR Policy. Unless and until a FRAND royalty rate is determined, Core Wireless continues to be damaged by delayed adjudication of its rights.
- 67. The Court's determination of a FRAND royalty rate is specific relief available through a decree of conclusive character.

FOURTH COUNT (Infringement of the '634 patent)

- 68. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-67 of this Complaint as though fully set forth herein.
- 69. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '634 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '634 patent and therefore infringe the '634 patent.
- 70. LG Defendants had actual notice of the '634 patent at least by March 6, 2013, and also received knowledge as of the date this lawsuit was filed.
- 71. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '634 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '634 patent. LG Defendants are infringing claims of the '634 patent literally and/or pursuant to the doctrine of equivalents.

- 72. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '634 patent's claims indirectly by inducing the infringement of the '634 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 73. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '634 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '634 patent's claims. LG Defendants knew of the '634 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '634 patent's claims by third parties.
- 74. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '634 patent's claims indirectly by contributing to the infringement of the '634 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 75. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '634 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 76. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 77. LG Defendants had actual notice of the '634 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 78. Core Wireless is informed and believes that LG Defendants' infringement of the '634 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 79. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '634 patent's claims.
- 80. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

FIFTH COUNT (Infringement of the '321 patent)

- 81. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-80 of this Complaint as though fully set forth herein.
- 82. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '321 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '321 patent and therefore infringe the '321 patent.
- 83. LG Defendants had actual notice of the '321 patent no later than April 18, 2012, and also received knowledge as of the date this lawsuit was filed.
- 84. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '321 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '321 patent. LG Defendants are infringing claims of the '321 patent literally and/or pursuant to the doctrine of equivalents.

- 85. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '321 patent's claims indirectly by inducing the infringement of the '321 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 86. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '321 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '321 patent's claims. LG Defendants knew of the '321 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '321 patent's claims by third parties.
- 87. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '321 patent's claims indirectly by contributing to the infringement of the '321 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 88. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '321 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 89. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 90. LG Defendants had actual notice of the '321 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 91. Core Wireless is informed and believes that LG Defendants' infringement of the '321 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 92. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '321 patent's claims.
- 93. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

SIXTH COUNT (Infringement of the '151 patent)

- 94. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-93 of this Complaint as though fully set forth herein.
- 95. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '151 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '151 patent and therefore infringe the '151 patent.
- 96. LG Defendants received actual notice of the '151 patent as of the date this lawsuit was filed.
- 97. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '151 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '151 patent. LG Defendants are infringing claims of the '151 patent literally and/or pursuant to the doctrine of equivalents.

- 98. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '151 patent's claims indirectly by inducing the infringement of the '151 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 99. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '151 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intend third parties to infringe the '151 patent's claims. LG Defendants know of the '151 patent, LG Defendants perform affirmative acts that constitute induced infringement, and LG Defendants know or should know that those acts would induce actual infringement of one or more of the '151 patent's claims by third parties.
- 100. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '151 patent's claims indirectly by contributing to the infringement of the '151 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of the LG Standard-Compliant Products, in this District, and elsewhere in the United

States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 101. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '151 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 102. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 103. LG Defendants had actual notice of the '151 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 104. Core Wireless is informed and believes that LG Defendants' infringement of the'151 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 105. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '151 patent's claims.
- 106. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

SEVENTH COUNT (Infringement of the '536 patent)

- 107. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-106 of this Complaint as though fully set forth herein.
- 108. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '536 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '536 patent and therefore infringe the '536 patent.
- 109. LG Defendants had actual notice of the '536 patent at least by March 6, 2013, and also received knowledge as of the date this lawsuit was filed.
- 110. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '536 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '536 patent. LG Defendants are infringing claims of the '536 patent literally and/or pursuant to the doctrine of equivalents.

- 111. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '536 patent's claims indirectly by inducing the infringement of the '536 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 112. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '536 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '536 patent's claims. LG Defendants knew of the '536 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '536 patent's claims by third parties.
- 113. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '536 patent's claims indirectly by contributing to the infringement of the '536 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 114. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '536 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 115. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 116. LG Defendants had actual notice of the '536 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 117. Core Wireless is informed and believes that LG Defendants' infringement of the '536 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 118. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '536 patent's claims.
- 119. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

EIGHTH COUNT (Infringement of the '143 patent)

- 120. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-119 of this Complaint as though fully set forth herein.
- 121. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '143 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '143 patent and therefore infringe the '143 patent.
- 122. LG Defendants had actual notice of the '143 patent no later than April 18, 2012, and also received knowledge as of the date this lawsuit was filed.
- 123. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '143 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '143 patent. LG Defendants are infringing claims of the '143 patent literally and/or pursuant to the doctrine of equivalents.

- 124. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '143 patent's claims indirectly by inducing the infringement of the '143 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 125. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '143 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '143 patent's claims. LG Defendants knew of the '143 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '143 patent's claims by third parties.
- 126. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '143 patent's claims indirectly by contributing to the infringement of the '143 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 127. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '143 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 128. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 129. LG Defendants had actual notice of the '143 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 130. Core Wireless is informed and believes that LG Defendants' infringement of the'143 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 131. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '143 patent's claims.
- 132. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

NINTH COUNT (Infringement of the '022 patent)

- 133. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-132 of this Complaint as though fully set forth herein.
- 134. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '022 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '022 patent and therefore infringe the '022 patent.
- 135. LG Defendants had actual notice of the '022 patent at least by May 23, 2012, and also received knowledge as of the date this lawsuit was filed.
- 136. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '022 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '022 patent. LG Defendants are infringing claims of the '022 patent literally and/or pursuant to the doctrine of equivalents.

- 137. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '022 patent's claims indirectly by inducing the infringement of the '022 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products including without limitation use of the LG Standard-Compliant Products.
- 138. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '022 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '022 patent's claims. LG Defendants knew of the '022 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '022 patent's claims by third parties.
- 139. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '022 patent's claims indirectly by contributing to the infringement of the '022 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 140. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '022 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 141. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 142. LG Defendants had actual notice of the '022 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 143. Core Wireless is informed and believes that LG Defendants' infringement of the '022 patent's claims has been and continues to be willful entitling Core Wireless to increased

damages pursuant to 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

- 144. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '022 patent's claims.
- 145. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

TENTH COUNT (Infringement of the '271 patent)

- 146. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-145 of this Complaint as though fully set forth herein.
- 147. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '271 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '271 patent and therefore infringe the '271 patent.
- 148. LG Defendants had actual notice of the '271 patent no later than April 18, 2012, and also received knowledge as of the date this lawsuit was filed.
- 149. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '271 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '271 patent. LG Defendants are infringing claims of the '271 patent literally and/or pursuant to the doctrine of equivalents.

- 150. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '271 patent's claims indirectly by inducing the infringement of the '271 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 151. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '271 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '271 patent's claims. LG Defendants knew of the '271 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '271 patent's claims by third parties.
- 152. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '271 patent's claims indirectly by contributing to the infringement of the '271 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 153. LG Defendants install, configure, and sell their LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '271 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 154. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 155. LG Defendants had actual notice of the '271 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 156. Core Wireless is informed and believes that LG Defendants' infringement of the '271 patent's claims has been and continues to be willful entitling Core Wireless to increased

- 157. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '271 patent's claims.
- 158. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

ELEVENTH COUNT (Infringement of the '664 patent)

- 159. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-158 of this Complaint as though fully set forth herein.
- 160. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '664 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '664 patent and therefore infringe the '664 patent.
- 161. LG Defendants had actual notice of the '664 patent at least by May 23, 2012, and also received knowledge as of the date this lawsuit was filed.
- 162. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '664 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '664 patent. LG Defendants are infringing claims of the '664 patent literally and/or pursuant to the doctrine of equivalents.

- 163. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '664 patent's claims indirectly by inducing the infringement of the '664 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of LG Standard-Compliant Products.
- 164. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '664 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '664 patent's claims. LG Defendants knew of the '664 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '664 patent's claims by third parties.
- 165. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '664 patent's claims indirectly by contributing to the infringement of the '664 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 166. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '664 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 167. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 168. LG Defendants had actual notice of the '664 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 169. Core Wireless is informed and believes that LG Defendants' infringement of the '664 patent's claims has been and continues to be willful entitling Core Wireless to increased

- 170. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '664 patent's claims.
- 171. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

TWELFTH COUNT (Infringement of the '818 patent)

- 172. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-171 of this Complaint as though fully set forth herein.
- 173. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '818 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '818 patent and therefore infringe the '818 patent.
- 174. LG Defendants had actual notice of the '818 patent at least by March 6, 2013, and also received knowledge as of the date this lawsuit was filed.
- 175. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '818 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '818 patent. LG Defendants are infringing claims of the '818 patent literally and/or pursuant to the doctrine of equivalents.

- 176. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '818 patent's claims indirectly by inducing the infringement of the '818 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 177. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '818 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '818 patent's claims. LG Defendants knew of the '818 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '818 patent's claims by third parties.
- 178. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '818 patent's claims indirectly by contributing to the infringement of the '818 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States.

Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 179. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '818 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 180. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 181. LG Defendants had actual notice of the '818 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 182. Core Wireless is informed and believes that LG Defendants' infringement of the '818 patent's claims has been and continues to be willful entitling Core Wireless to increased

- 183. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '818 patent's claims.
- 184. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

THIRTEENTH COUNT (Infringement of the '850 patent)

- 185. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-184 of this Complaint as though fully set forth herein.
- 186. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '850 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '850 patent and therefore infringe the '850 patent.
- 187. LG Defendants had actual notice of the '850 patent at least by May 23, 2012, and also received knowledge as of the date this lawsuit was filed.
- 188. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '850 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice

the inventions claimed in the '850 patent. LG Defendants are infringing claims of the '850 patent literally and/or pursuant to the doctrine of equivalents.

- 189. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '850 patent's claims indirectly by inducing the infringement of the '850 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 190. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '850 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '850 patent's claims. LG Defendants knew of the '850 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '850 patent's claims by third parties.
- 191. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '850 patent's claims indirectly by contributing to the infringement of the '850 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of the LG Standard-Compliant Products, in this District, and elsewhere in the United

States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 192. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '850 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 193. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 194. LG Defendants had actual notice of the '850 patent prior to this lawsuit being filed, had knowledge of the infringing nature of their activities, and have nevertheless continued their infringing activities.
- 195. Core Wireless is informed and believes that LG Defendants' infringement of the '850 patent's claims has been and continues to be willful entitling Core Wireless to increased

- 196. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '850 patent's claims.
- 197. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

FOURTEENTH COUNT (Infringement of the '049 patent)

- 198. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-197 of this Complaint as though fully set forth herein.
- 199. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '049 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '049 patent and therefore infringe the '049 patent.
- 200. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '049 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice the inventions claimed in the '049 patent. LG Defendants are infringing claims of the '049 patent literally and/or pursuant to the doctrine of equivalents.

- 201. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '049 patent's claims indirectly by inducing the infringement of the '049 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 202. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '049 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '049 patent's claims. LG Defendants knew of the '049 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '049 patent's claims by third parties.
- 203. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '049 patent's claims indirectly by contributing to the infringement of the '049 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of the LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the

LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 204. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '049 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 205. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 206. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '049 patent's claims.
- 207. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

FIFTEENTH COUNT (Infringement of the '828 patent)

- 208. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-207 of this Complaint as though fully set forth herein.
- 209. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '828 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '828 patent and therefore infringe the '828 patent.
- 210. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '828 patent's claims directly by making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice the inventions claimed in the '828 patent. LG Defendants are infringing claims of the '828 patent literally and/or pursuant to the doctrine of equivalents.
- 211. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '828 patent's claims indirectly by inducing the infringement of the '828 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 212. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing

Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '828 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '828 patent's claims. LG Defendants knew of the '828 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '828 patent's claims by third parties.

- 213. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '828 patent's claims indirectly by contributing to the infringement of the '828 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of the LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 214. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '828 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

- 215. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 216. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '828 patent's claims.
- 217. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

SIXTEENTH COUNT (Infringement of the '398 patent)

- 218. Core Wireless incorporates by reference the allegations set forth in Paragraphs 1-217 of this Complaint as though fully set forth herein.
- 219. Core Wireless is informed and believes that it is necessary to practice one or more of the claims of the '398 patent to comply with the requirements of certain standards applicable to mobile communications. Core Wireless is informed and believes that LG Standard-Compliant Products comply with the applicable standards covered by the claims of the '398 patent and therefore infringe the '398 patent.
- 220. In violation of 35 U.S.C. § 271(a), LG Defendants are and have been infringing one or more of the '398 patent's claims directly by making, using, offering to sell, and/or selling

in the United States, and/or importing into the United States, without authority, products, including without limitation LG Standard-Compliant Products, that are covered by or practice the inventions claimed in the '398 patent. LG Defendants are infringing claims of the '398 patent literally and/or pursuant to the doctrine of equivalents.

- 221. In violation of 35 U.S.C. § 271(b), LG Defendants are and have been infringing one or more of the '398 patent's claims indirectly by inducing the infringement of the '398 patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.
- 222. LG Defendants' affirmative acts of selling the LG Standard-Compliant Products, causing the LG Standard-Compliant Products to be manufactured and distributed, and providing instructive materials and information concerning operation and use of the LG Standard-Compliant Products induced third parties to make or use LG Standard-Compliant Products in their normal and customary way to infringe the '398 patent's claims. By manufacturing, distributing, and selling the LG Standard-Compliant Products, LG Defendants knowingly and specifically intended third parties to infringe the '398 patent's claims. LG Defendants knew of the '398 patent, LG Defendants performed affirmative acts that constitute induced infringement, and LG Defendants knew or should have known that those acts would induce actual infringement of one or more of the '398 patent's claims by third parties.
- 223. In violation of 35 U.S.C. § 271(c), LG Defendants are and have been infringing one or more of the '398 patent's claims indirectly by contributing to the infringement of the '398

patent's claims by third parties, including without limitation manufacturers, resellers, and/or end users of the LG Standard-Compliant Products, in this District, and elsewhere in the United States. Direct infringement is the result of activities performed by third parties in relation to the LG Standard-Compliant Products, including without limitation use of the LG Standard-Compliant Products.

- 224. LG Defendants install, configure, and sell LG Standard-Compliant Products with distinct and separate hardware and/or software components especially made or especially adapted to practice the invention claimed in the '398 patent. That hardware and/or software is a material part of the invention. That hardware and/or software is not a staple article or commodity of commerce because it is specifically designed to perform the claimed functionality. Any other use of that hardware and/or software would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.
- 225. A reasonable inference may be drawn from the facts set forth above that LG Defendants are making, using, offering to sell, and/or selling in the United States, and/or importing into the United States, without authority, a component of a patented machine, manufacture, combination or composition, or a material or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of a patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.
- 226. Core Wireless is informed and believes that LG Defendants intend to and will continue to directly infringe, induce infringement, and/or contribute to infringement of the '398 patent's claims.

227. LG Defendants' acts of infringement have caused damages to Core Wireless and Core Wireless is entitled to recover from LG Defendants the damages sustained by Core Wireless as a result of LG Defendants' wrongful acts in an amount subject to proof at trial.

DAMAGES

- 228. As a result of LG Defendant' contractual breaches, Core Wireless has suffered damages; however, Core Wireless does not yet know the full extent of those damages and they cannot be ascertained except through discovery and special accounting. To the fullest extent permitted by law, Core Wireless seeks recovery of all contractual damages to which Core Wireless would be entitled to in law or in equity.
- 229. LG Defendants' acts of infringement are and were committed intentionally, knowingly, and with callous disregard of Core Wireless's legitimate rights. Core Wireless is therefore entitled to and now seeks to recover exemplary damages in an amount not less than the maximum amount permitted by law.
- 230. As a result of LG Defendants' acts of infringement, Core Wireless has suffered actual and consequential damages; however, Core Wireless does not yet know the full extent of the infringement and its extent cannot be ascertained except through discovery and special accounting. To the fullest extent permitted by law, Core Wireless seeks recovery of damages at least for reasonable royalties, unjust enrichment, and benefits received by LG Defendants as a result of using the misappropriated technology. Core Wireless further seeks any other damages to which Core Wireless would be entitled to in law or in equity.

ATTORNEYS' FEES

231. Core Wireless is entitled to recover reasonable and necessary attorneys' fees under applicable law.

PRAYER FOR RELIEF

Core Wireless respectfully requests that this Honorable Court enter preliminary and final orders, declarations, and judgments against LG Defendants as are necessary to provide Core Wireless with the following relief:

- (a) A judgment that LG Defendants breached their contractual obligations with ETSI.
- (b) All direct and consequential damages stemming from LG Defendants' breaches of their contractual obligations, including without limitation attorneys' fees and litigation expenses
- (c) A declaration that LG Defendants violated their duty to negotiate in good faith and are unwilling licensees to Core Wireless's Standard-Essential Patents, including the patents-in-suit;
- (d) A mandatory future royalty payable on each future product sold by LG

 Defendants that is found to infringe one or more of the patents-in-suit and on all future products which are not colorably different from products found to infringe;
- (e) As a mimimum measure of the compensation Core Wireless is entitled to, a declaration of a FRAND royalty rate for Core Wireless's Standard-Essential Patents;
- (f) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '634 patent;
- (g) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '321 patent;
- (h) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '151 patent;
- (i) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '536 patent;
- (j) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '143 patent;

- (k) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '022 patent;
- (l) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '271 patent;
- (m) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '664 patent;
- (n) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '818 patent;
- (o) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '850 patent;
- (p) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '049 patent;
- (q) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '828 patent;
- (r) A judgment that LG Defendants have infringed and/or are infringing one or more claims of the '398 patent;
 - (s) Actual damages;
 - (t) Enhanced damages pursuant to 35 U.S.C. § 284;
 - (u) Attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise allowed by law;
 - (v) Pre-judgment and post-judgment interest as allowed by law;
 - (w) Costs of suit;
- (x) All further relief in law or in equity as the Court may deem just and proper, including without limitation equitable relief of a mandatory royalty and/or an injunction against future infringing sales upon a determination that LG Defendants are unwilling licensees.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure and Local Rule CV-38,

Core Wireless demands a trial by jury of this action.

Dated: September 26, 2014 Respectfully Submitted,

By: /s/ S. Calvin Capshaw

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