

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION**

PARKERVISION, INC.,

Plaintiff,

v.

QUALCOMM INCORPORATED,
QUALCOMM ATHEROS, INC.,
HTC CORPORATION, HTC
AMERICA, INC., SAMSUNG
ELECTRONICS CO., LTD., SAMSUNG
ELECTRONICS AMERICA, INC., and
SAMSUNG TELECOMMUNICATIONS
AMERICA, LLC,

Defendants.

CASE NO.: 6:14-cv-00687-PGB-KRS

**JURY TRIAL DEMANDED AND
INJUNCTIVE RELIEF SOUGHT**

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff ParkerVision, Inc. (“ParkerVision”), files this First Amended Complaint for patent infringement against Defendants Qualcomm Incorporated (“Qualcomm Inc.”), Qualcomm Atheros, Inc. (“Qualcomm Atheros”), HTC Corporation (“HTC Corp.”), HTC America, Inc. (“HTC America”), Samsung Electronics Co., Ltd. (“SEC”), Samsung Electronics America, Inc. (“SEA”), and Samsung Telecommunications America, LLC (“STA”) (Qualcomm Inc., Qualcomm Atheros, HTC Corp., HTC America, SEC, SEA, and STA collectively “Defendants”) and alleges as follows:

BACKGROUND

1. Since as early as 1990, ParkerVision has pioneered the development of numerous telecommunication technologies, resulting in hundreds of patents. In the mid-

1990s, while working on a radio-controlled tracking camera, engineers at ParkerVision developed a novel down-converter that allowed radio frequency (“RF”) receivers to be built smaller, cheaper, and with greatly improved performance. As a result of continued work with this novel down-conversion technology, ParkerVision’s engineers developed novel up-converter and other complementary wireless communications technologies.

2. ParkerVision’s efforts to develop its down-conversion, up-conversion, and complementary wireless communications technologies culminated in the ideas patented in U.S. Patent Nos. 6,091,940 (“the ’940 patent”), 6,580,902 (“the ’902 patent”), 6,704,549 (“the ’549 patent”), 6,873,836 (“the ’836 patent”), 7,039,372 (“the ’372 patent”), 7,050,508 (“the ’508 patent”), 7,194,246 (“the ’246 patent), 7,218,907 (“the ’907 patent”), 7,865,177 (“the ’177 patent), 7,966,012 (“the ’012 patent”), and 8,190,116 (“the ’116 patent”) (collectively “the patents-in-suit”), among other patents.

3. ParkerVision’s patented ideas help make the receivers and transmitters used in today’s mobile devices (such as smart phones and tablets) smaller, cheaper, more efficient, and higher performance.

PARTIES

4. Plaintiff ParkerVision is a Florida corporation with its principal places of business at 7915 Baymeadows Way, Suite 400, Jacksonville, FL 32256 and 1035 Greenwood Boulevard, Lake Mary, FL 32746.

5. Defendant Qualcomm Inc. is a Delaware corporation with its principal place of business at 5775 Morehouse Drive, San Diego, CA 92121. Qualcomm Inc. can be served with process through its registered agent, Corporation Service Company, 1201 Hays Street, Tallahassee, FL 32301.

6. Defendant Qualcomm Atheros is a Delaware corporation with its principal place of business at 1700 Technology Drive, San Jose, CA 95110. Qualcomm Atheros can be served with process through its registered agent, Corporation Service Company, 1201 Hays Street, Tallahassee, FL 32301.

7. Defendant HTC Corp. is a Taiwanese corporation with its principal place of business at No. 23, Xinghua Road, Taoyuan City, Taoyuan County 330, Taiwan, R.O.C.

8. Defendant HTC America is a Washington corporation with its principal place of business at 13920 SE Eastgate Way, Suite 400, Bellevue, WA 98005. HTC America can be served with process through its registered agent, National Registered Agents, Inc., 1200 South Pine Island Road, Plantation, FL 33324.

9. Upon information and belief, Defendant SEC is a corporation organized and existing under the laws of the Republic of Korea with its principal place of business at 416, Maetan 3-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742, South Korea.

10. Upon information and belief, Defendant SEA is a subsidiary of SEC and is a corporation organized and existing under the laws of the State of New York. Samsung Electronics America, Inc. maintains its principal place of business at 85 Challenger Road, Ridgefield Park, NJ 07660.

11. Upon information and belief, Defendant STA is a subsidiary of SEC and is a limited liability company organized and existing under the laws of the state of Delaware with its principal place of business at 1301 East Lookout Drive, Richardson, TX 75082.

JURISDICTION AND VENUE

12. Plaintiff repeats and re-alleges the allegations in Paragraphs 1 through 11 as though fully set forth in their entirety.

13. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 *et seq.*, including 35 U.S.C. §§ 271 and 281-85. This Court has exclusive subject matter jurisdiction over this case for patent infringement pursuant to 28 U.S.C. §§ 1331 and 1338(a).

14. Personal jurisdiction exists generally over Defendants Qualcomm Inc. and Qualcomm Atheros (collectively, “Qualcomm”) because they have sufficient minimum contacts with the forum as a result of business conducted within the State of Florida and the Middle District of Florida. Personal jurisdiction also exists specifically over Qualcomm because it, directly or through subsidiaries or intermediaries, makes, uses, offers for sale, sell, imports, advertises, makes available and/or markets products in the United States, the State of Florida, and the Middle District of Florida that infringe one or more claims of each of ParkerVision’s patents-in-suit, as described more particularly below.

15. Personal jurisdiction exists generally over Defendants HTC Corp. and HTC America (collectively, “HTC”) because they have sufficient minimum contacts with the forum as a result of business conducted within the State of Florida and the Middle District of Florida. Personal jurisdiction also exists specifically over HTC because it, directly or through subsidiaries or intermediaries, makes, uses, offers for sale, sell, imports, advertises, makes available and/or markets products in the United States, the State of Florida, and the Middle District of Florida that infringe one or more claims of each of ParkerVision’s Asserted Patents, as described more particularly below.

16. Personal jurisdiction exists generally over Defendants SEC, SEA, and STA (collectively, “Samsung”) because they have sufficient minimum contacts with the forum as a result of business conducted within the State of Florida and the Middle District of

Florida. Personal jurisdiction also exists specifically over Samsung because it, directly or through subsidiaries or intermediaries, makes, uses, offers for sale, sell, imports, advertises, makes available and/or markets products in the United States, the State of Florida, and the Middle District of Florida that infringe one or more claims of each of ParkerVision's Asserted Patents, as described more particularly below.

17. Venue is proper in the Middle District of Florida pursuant to 28 U.S.C. §§ 1391(b), 1391(d), and 1400(b). Venue is further supported by the fact that this District and this Court have significant experience with related technology because of the experience garnered in *ParkerVision, Inc. v. Qualcomm Inc.*, C.A. No. 3:11-cv-719-RBD-JRK (M.D. Fla. July 20, 2011) as set forth in the docket, orders, and pleadings associated with that case.

HISTORY OF THE PARTIES

18. From 1995 through 1998, a group of ParkerVision engineers discovered that RF direct conversion receivers using ParkerVision's innovative RF energy transfer sampling could replace the widely used and conventional super-heterodyne receivers by the process of sampling a RF carrier signal and transferring power to create a downconverted baseband signal. This innovation led to improved RF receiver performance, lower power consumption, size and integration benefits, and overall reduced costs. ParkerVision developed prototype chips and conducted tests over this time period. Several patents resulted from ParkerVision's research and development efforts.

19. As part of its work on RF direct conversion technologies, ParkerVision developed and patented RF down-conversion technologies, RF up-conversion technologies, and various other related direct-conversion technologies. Similar to ParkerVision's down-

conversion technology its up-conversion technology also offered size and integration benefits, improved performance, lower costs, and power savings. ParkerVision also developed complementary wireless communications technologies that involved interactions, processes, and controls between the baseband processor and the transceiver, which improve and enhance the operation of transceivers that incorporate ParkerVision's down-converter and up-converter technologies.

20. From 1998 through 1999, ParkerVision and Qualcomm negotiated over whether Qualcomm would license ParkerVision's energy transfer sampling down-conversion technology. In 1999, ParkerVision informed Qualcomm that ParkerVision had patents pending for its down-conversion technology and specifically discussed ten of ParkerVision's pending patent applications. ParkerVision also disclosed to Qualcomm its development of complementary technology that used feedback and interaction with the baseband processor to improve upon the performance of the down-converter and/or receiver. Fundamentally believing in the value of its technology, and being of the opinion that Qualcomm was not negotiating reasonably, ParkerVision did not agree to the financial terms Qualcomm offered and broke off licensing discussions in mid- to late 1999.

21. Before licensing discussions broke off between the parties, ParkerVision shared with Qualcomm information and test results regarding its up-conversion technology. In addition, ParkerVision's disclosure of pending patent applications to Qualcomm in 1999 included at least one patent application which became an issued U.S. patent covering ParkerVision's up-conversion technology.

22. HTC and Samsung are Qualcomm customers. HTC and Samsung design, manufacture, use, import into the United States, sell, and/or offer for sale in the United

States cell phones, tablets, and other computing devices that contain integration circuits designed, manufactured, sold and/or offered for sale by Qualcomm with transmitter, receiver, and/or baseband processing functionality and technology.

HISTORY OF PRIOR LITIGATION

23. The need for smaller, more efficient receivers able to support multiple frequency bands came to the forefront in the mid-2000s, with the rise in popularity of smartphones. At this time, Qualcomm began designing and selling receivers which infringe some of ParkerVision's down-conversion patents, particularly claims 23, 25, 161, 193, and 202 of U.S. Patent No. 6,061,551, claims 27, 82, 90, and 91 of U.S. Patent No. 6,266,518, claim 2 of U.S. Patent No. 6,370,371, and claim 18 of U.S. Patent No. 7,496,342. Despite introducing infringing receivers into the United States' market, Qualcomm never returned to ParkerVision for a license. Instead, ParkerVision independently discovered Qualcomm's infringement of its down-conversion patents in 2011. In mid-2011, after confirming Qualcomm's infringement of certain ParkerVision down-conversion patents, ParkerVision filed suit against Qualcomm.

24. In October 2013, a jury validated ParkerVision's down-conversion technology by finding several of its down-conversion patents not invalid and infringed by Qualcomm integrated circuits.

25. The patents-in-suit in this action are different than the patents-in-suit in ParkerVision's prior action against Qualcomm, covering additional technologies. ParkerVision has used the time since the conclusion of the trial in the prior action against Qualcomm to investigate Qualcomm's infringement of the patents-in-suit in this action.

THE ASSERTED PATENTS

26. On July 18, 2000, the U.S. Patent and Trademark Office duly and legally issued the '940 patent, entitled "Method and System for Frequency Up-conversion," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. On November 4, 2003, the United States Patent Office duly and legally issued a Certificate of Correction for claims 8, 15, 36, 115, 120, 192, 272, 273, 294, 332, 343, 370, and 374. ParkerVision is the owner by assignment of the '940 patent and possesses all rights of recovery under the '940 patent. A true and correct copy of the '940 patent is attached hereto as Exhibit A and incorporated herein by reference.

27. On June 17, 2003, the U.S. Patent and Trademark Office duly and legally issued the '902 patent, entitled "Frequency Translation Using Optimized Switch Structures," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. On March 30, 2004, the United States Patent Office duly and legally issued a Certificate of Correction for the '902 patent's specification. ParkerVision is the owner by assignment of the '902 patent and possesses all rights of recovery under the '902 patent. A true and correct copy of the '902 patent is attached hereto as Exhibit B and incorporated herein by reference.

28. On March 9, 2004, the U.S. Patent and Trademark Office duly and legally issued the '549 patent, entitled "Multi-mode, Multi-band Communication System," to David F. Sorrells, Michael J. Bultman, Charles D. Clements, Robert W. Cook, Joseph M. Hamilla, Richard C. Looke, Charley D. Moses, Jr., and Gregory S. Silver. On October 18, 2005, the United States Patent Office duly and legally issued a Certificate of Correction for claims 12, 24, 55, and 63. ParkerVision is the owner by assignment of the '549 patent and

possesses all rights of recovery under the '549 patent. A true and correct copy of the '549 patent is attached hereto as Exhibit C and incorporated herein by reference.

29. On March 29, 2005, the U.S. Patent and Trademark Office duly and legally issued the '836 patent), entitled "Universal Platform Module and Methods and Apparatus Relating thereto Enabled by Universal Frequency Translation Technology," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. ParkerVision is the owner by assignment of the '836 patent and possesses all rights of recovery under the '836 patent. A true and correct copy of the '836 patent is attached hereto as Exhibit D and incorporated herein by reference.

30. On May 2, 2006, the U.S. Patent and Trademark Office duly and legally issued the '372 patent, entitled "Method and System for Frequency Up-conversion with Modulation Embodiments," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. On December 12, 2006, the United States Patent Office duly and legally issued a Certificate of Correction for claim 24. ParkerVision is the owner by assignment of the '372 patent and possesses all rights of recovery under the '372 patent. A true and correct copy of the '372 patent is attached hereto as Exhibit E and incorporated herein by reference.

31. On May 23, 2006, the U.S. Patent and Trademark Office duly and legally issued the '508 patent, entitled "Method and System for Frequency Up-conversion with a Variety of Transmitter Configurations," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, Charley D. Moses, Jr., Gregory S. Rawlins, and Michael W. Rawlins. ParkerVision is the owner by assignment of the '508 patent and possesses all

rights of recovery under the '508 patent. A true and correct copy of the '508 patent is attached hereto as Exhibit F and incorporated herein by reference.

32. On March 20, 2007, the U.S. Patent and Trademark Office duly and legally issued the '246 patent, entitled "Methods and Systems For Down-converting A Signal Using A Complementary Transistor Structure," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. On October 9, 2007, the United States Patent Office duly and legally issued a Certificate of Correction for the '246 patent's specification. ParkerVision is the owner by assignment of the '246 patent and possesses all rights of recovery under the '246 patent. A true and correct copy of the '246 patent is attached hereto as Exhibit G and incorporated herein by reference.

33. On May 15, 2007, the U.S. Patent and Trademark Office duly and legally issued the '907 patent, entitled "Method And Circuit For Down-converting A Signal," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. ParkerVision is the owner by assignment of the '907 patent and possesses all rights of recovery under the '907 patent. A true and correct copy of the '907 patent is attached hereto as Exhibit H and incorporated herein by reference.

34. On January 4, 2011, the U.S. Patent and Trademark Office duly and legally issued the '177 patent, entitled "Method And System For Down-converting An Electromagnetic Signal, And Transforms For Same, And Aperture Relationships," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, Charley D. Moses, Gregory S. Rawlins, and Michael W. Rawlins. ParkerVision is the owner by assignment of the '177 patent and possesses all rights of recovery under the '177 patent. A

true and correct copy of the '177 patent is attached hereto as Exhibit I and incorporated herein by reference.

35. On June 21, 2011, the U.S. Patent and Trademark Office duly and legally issued the '012 patent, entitled "Wireless Protocol Converter," to Jeffrey L. Parker. ParkerVision is the owner by assignment of the '012 patent and possesses all rights of recovery under the '012 patent. A true and correct copy of the '012 patent is attached hereto as Exhibit J and incorporated herein by reference.

36. On May 29, 2012, the U.S. Patent and Trademark Office duly and legally issued the '116 patent, entitled "Methods and Systems for Down-converting a Signal Using a Complementary Transistor Structure," to David F. Sorrells, Michael J. Bultman, Robert W. Cook, Richard C. Looke, and Charley D. Moses, Jr. ParkerVision is the owner by assignment of the '116 patent and possesses all rights of recovery under the '116 patent. A true and correct copy of the '116 patent is attached hereto as Exhibit K and incorporated herein by reference.

37. ParkerVision is the sole and exclusive owner of all rights, title, and interest to the patents-in-suit, including the right to recover damages for past infringement. ParkerVision owned the patents-in-suit throughout the period of the Defendants' infringement and still owns the patents-in-suit. ParkerVision has not granted Qualcomm, HTC, or Samsung a license to practice the patents-in-suit.

38. The patents-in-suit are valid and enforceable.

GENERAL ALLEGATIONS

39. Defendants have and continue to make, use, import into the United States, market, offer for sale, and/or sell in the United States integrated circuits that infringe the

patents-in-suit, and/or induce or contribute to the infringement of the patents-in-suit by others, including original equipment manufacturers (“OEMs”) and end-users.

40. ParkerVision has been damaged as a result of Defendants’ infringing conduct. Defendants are therefore at least liable to ParkerVision in an amount that adequately compensates ParkerVision for Defendants’ infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT I: INFRINGEMENT OF THE ’940 PATENT

41. ParkerVision repeats and realleges the allegations in paragraphs 1-40 as though fully set forth herein.

Qualcomm Infringes the ’940 Patent

42. Qualcomm has directly infringed and continues to directly infringe the ’940 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the ’940 patent. Qualcomm products that infringe one or more claims of the ’940 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of up-conversion of a lower-frequency signal to a higher-frequency signal as claimed in the ’940 patent.

43. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes at least one or more claims of the ’940 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the ’940 patent.

44. Qualcomm has induced and continues to induce and contribute to infringement of the '940 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '940 patent, including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '940 patent.

45. Qualcomm indirectly infringes the '940 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

46. Qualcomm has had actual knowledge of or was willfully blind to the '940 patent since the '940 patent issued. For example, in May 1999, Qualcomm met with ParkerVision and its lawyers to discuss ten of ParkerVision's pending patent applications, one of which issued as the '940 patent. It is believed that Qualcomm received the '940 patent upon its issuance. At the latest, Qualcomm received notice of the '940 patent as of the date this lawsuit was filed.

47. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '940 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more

claims of the '940 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '940 patent.

48. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '940 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '940 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '940 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '940 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

49. Qualcomm indirectly infringes the '940 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the

United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

50. Qualcomm received notice of the '940 patent at least as of the date this complaint was filed. Qualcomm also had actual knowledge of or remained willfully blind to the '940 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 46.

51. Qualcomm's infringing products allow for the up-conversion of a lower-frequency signal, *e.g.*, a baseband information signal, to a higher-frequency signal, *e.g.*, carrier signal. When the infringing products are used to up-convert the lower-frequency signal to a higher-frequency signal as claimed in the '940 patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

52. A reasonable inference to be drawn from the facts set forth above is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

53. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

54. Qualcomm's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '940 patent and are especially made for the infringing manufacturing, offering for sale,

sales, and use of the infringing products. Qualcomm's infringing products are especially made or adapted to infringe one or more claims of the '940 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '940 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

55. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '940 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

56. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '940 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

57. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

58. Qualcomm has known about the '940 patent, as set forth *supra* at Paragraph 46. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '940 Patent

59. HTC has infringed and continues to directly infringe the '940 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '940 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '940 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of up-conversion of a lower-frequency signal to a higher-frequency signal as claimed in the '940 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '940 patent.

60. HTC has induced and continues to induce and contribute to infringement of the '940 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '940 patent, including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn,

use, offer for sale, or sell in the United States these products that infringe one or more claims of the '940 patent.

61. HTC indirectly infringes the '940 patent by inducing infringement by others, such as customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the manufacturers, resellers, and/or end-users of the infringing products. HTC had received knowledge of the '940 Patent at least as of the date this lawsuit was filed and served. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

62. HTC received notice of the '940 patent at least as of the date this complaint was filed and served.

63. HTC designed the infringing products such that they would each infringe one or more claims of the '940 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '940 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '940 patent.

64. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '940 patent in the United States. For example, HTC provides instructions, user guides,

and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '940 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '940 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '940 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

65. HTC indirectly infringes the '940 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

66. HTC received notice of the '940 patent at least as of the date this complaint was filed and served.

67. HTC's infringing products allow for the up-conversion of a lower-frequency signal, *e.g.*, a baseband information signal, to a higher-frequency signal, *e.g.*, carrier signal. When the infringing products are used to up-convert the lower-frequency signal to a

higher-frequency signal as claimed in the '940 patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

68. A reasonable inference to be drawn from the facts set forth above is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

69. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

70. HTC's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '940 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. HTC's infringing products are especially made or adapted to infringe one or more claims of the '940 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '940 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

71. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '940

patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

72. As a direct and proximate consequence of the acts and practices of HTC in infringing one or more claims of the '940 patent, directly and/or indirectly, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

73. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '940 Patent

74. Samsung has infringed and continues to directly infringe the '940 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '940 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '940 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of up-conversion of a lower-frequency signal to a higher-frequency signal

as claimed in the '940 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '940 patent.

75. Samsung has induced and continues to induce and contribute to infringement of the '940 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '940 patent, including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '940 patent. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

76. Samsung indirectly infringes the '940 patent by inducing infringement by others, such as customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the manufacturers, resellers, and/or end-users of the infringing products. Samsung had received knowledge of the '940 Patent at least by August 2014, as of the date this lawsuit was filed and served.

77. Samsung designed the infringing products such that they would each infringe one or more claims of the '940 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more

claims of the '940 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '940 patent.

78. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '940 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '940 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '940 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '940 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

79. Samsung indirectly infringes the '940 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States.

Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

80. Samsung received notice of the '940 patent at least as of the date this complaint was filed and served.

81. Samsung's infringing products allow for the up-conversion of a lower-frequency signal, *e.g.*, a baseband information signal, to a higher-frequency signal, *e.g.*, carrier signal. When the infringing products are used to up-convert the lower-frequency signal to a higher-frequency signal as claimed in the '940 patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

82. A reasonable inference to be drawn from the facts set forth above is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on Samsung's infringing products.

83. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

84. Samsung's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '940 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Samsung's infringing products are especially

made or adapted to infringe one or more claims of the '940 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '940 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

85. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '940 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

86. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '940 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

87. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT II: INFRINGEMENT OF THE '902 PATENT

88. ParkerVision repeats and realleges the allegations in paragraphs 1-87 as though fully set forth herein.

Qualcomm Infringes the '902 Patent

89. Qualcomm has directly infringed and continues to directly infringe the '902 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '902 patent. Qualcomm products that infringe one or more claims of the '902 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '902 patent.

90. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes at least one or more claims of the '902 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '902 patent.

91. Qualcomm has induced and continues to induce and contribute to infringement of the '902 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '902 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '902 patent.

92. Qualcomm indirectly infringes the '902 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

93. Qualcomm has had actual knowledge of or was willfully blind to the '902 patent since the '902 patent issued. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '551 patent covering similar down-conversion technology, and at least remained willfully blind to the existence of the '902 patent. At the latest, Qualcomm received notice of the '902 patent as of the date this lawsuit was filed.

94. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '902 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '902 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '902 patent.

95. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '902 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers,

and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '902 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '902 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '902 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

96. Qualcomm indirectly infringes the '902 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

97. Qualcomm received notice of the '902 patent at least as of the date this complaint was filed. Qualcomm also had actual knowledge of or remained willfully blind to the '902 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 93.

98. Qualcomm's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal.

When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '902 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

99. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

100. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

101. Qualcomm's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '902 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Qualcomm's infringing products are especially made or adapted to infringe one or more claims of the '902 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '902 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

102. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or

composition, or a material or apparatus for use in practicing one or more claims of the '902 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

103. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '902 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

104. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

105. Qualcomm has known about the '902 patent, as set forth *supra* at Paragraph 93. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '902 Patent

106. HTC has infringed and continues to directly infringe the '902 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '902 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '902 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '902 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '902 patent.

107. HTC has induced and continues to induce and contribute to infringement of the '902 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '902 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '902 patent. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

108. HTC indirectly infringes the '902 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct

infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

109. HTC received notice of the '902 patent at least as of the date this complaint was filed and served.

110. HTC designed the infringing products such that they would each infringe one or more claims of the '902 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '902 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '902 patent.

111. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '902 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '902 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '902 patent. HTC thus

knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '902 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

112. HTC indirectly infringes the '902 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

113. HTC received notice of the '902 patent at least as of the date this complaint was filed and served.

114. HTC's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '902 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

115. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

116. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

117. HTC's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '902 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. HTC's infringing products are especially made or adapted to infringe one or more claims of the '902 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '902 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

118. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '902 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

119. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '902 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also

suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

120. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '902 Patent

121. Samsung has infringed and continues to directly infringe the '902 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '902 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '902 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '902 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '902 patent.

122. Samsung indirectly infringes the '902 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers,

customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

123. Samsung received notice of the '902 patent at least as of the date this complaint was filed and served.

124. Samsung designed the infringing products such that they would each infringe one or more claims of the '902 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '902 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '902 patent.

125. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '902 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '902 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and

other design documentation, and directly infringe one or more claims of the '902 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '902 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

126. Samsung indirectly infringes the '902 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

127. Samsung received notice of the '902 patent at least as of the date this complaint was filed and served.

128. Samsung's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '902 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

129. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Samsung's infringing products.

130. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

131. Samsung's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '902 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Samsung's infringing products are especially made or adapted to infringe one or more claims of the '902 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '902 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

132. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '902 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

133. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '902 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

134. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT III: INFRINGEMENT OF THE '549 PATENT

135. ParkerVision repeats and realleges the allegations in paragraphs 1-134 as though fully set forth herein.

Qualcomm Infringes the '549 Patent

136. Qualcomm has infringed and continues to directly infringe the '549 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '549 patent. Qualcomm products that infringe one or more claims of the '549 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of modulating an information signal to create an angle modulated harmonically rich signal as claimed in the '549 patent.

137. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '549 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '549 patent.

138. Qualcomm has induced and continues to induce and contribute to infringement of the '549 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '549 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '549 patent.

139. Qualcomm indirectly infringes the '549 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

140. Qualcomm had actual knowledge of or was willfully blind to the '549 patent before this lawsuit was filed. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '940 patent covering similar up-conversion technology, and at least remained willfully blind to the existence of the '549 patent. At the latest, Qualcomm received notice of the '549 patent as of the date this lawsuit was filed.

141. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '549 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '549 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '549 patent.

142. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '549 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '549 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '549 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with

knowledge or willful blindness of the '549 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

143. Qualcomm indirectly infringes the '549 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

144. Qualcomm received notice of the '549 patent at least as of the date this lawsuit was filed. It is believed that Qualcomm had actual knowledge of or remained willfully blind to the '549 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 140.

145. Qualcomm's infringing products allow for the modulation of an information signal. When the infringing products are used to modulate an information signal to create an angle modulated harmonically rich signal as claimed in the '549 patent, the infringing products must necessarily modulate an information signal in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to modulate an information signal.

146. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is especially made or especially adapted to operate on Qualcomm's infringing products.

147. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is not a staple article or commodity of commerce and

that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

148. Qualcomm's infringing products, with the ability to modulate an information signal, are each a material part of the invention of the '549 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '549 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '549 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

149. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '549 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

150. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '549 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

151. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to

cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

152. Qualcomm has known about the '549 patent, as set forth *supra* at Paragraph 140. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '549 Patent

153. HTC has infringed and continues to directly infringe the '549 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '549 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '549 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of modulating an information signal to create an angle modulated harmonically rich signal as claimed in the '549 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '549 patent.

154. HTC has induced and continues to induce and contribute to infringement of the '549 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '549 patent

including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '549 patent.

155. HTC indirectly infringes the '549 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

156. HTC received notice of the '549 patent at least as of the date this complaint was filed and served.

157. HTC designed the infringing products such that they would each infringe one or more claims of the '549 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '549 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '549 patent.

158. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of

the '549 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '549 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '549 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '549 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

159. HTC indirectly infringes the '549 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

160. HTC received notice of the '549 patent at least as of the date this complaint was filed and served.

161. HTC's infringing products allow for the modulation of an information signal. When the infringing products are used to modulate an information signal to create

an angle modulated harmonically rich signal as claimed in the '549 patent, the infringing products must necessarily modulate an information signal in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to modulate an information signal.

162. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is especially made or especially adapted to operate on HTC's infringing products.

163. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

164. HTC's infringing products, with the ability to modulate an information signal, are each a material part of the invention of the '549 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '549 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '549 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

165. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '549 patent, constituting a material part of the invention, knowing the same to be especially

made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

166. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly one or more claims of the '549 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

167. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '549 Patent

168. Samsung has infringed and continues to directly infringe the '549 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '549 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '549 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of modulating an information signal to create an angle modulated harmonically rich signal as claimed in the '549 patent. Samsung makes, uses, sells, offers

for sale, or imports into the United States these products and thus directly infringes one or more claims of the '549 patent

169. Samsung has induced and continues to induce and contribute to infringement of the '549 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '549 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '549 patent.

170. Samsung indirectly infringes the '549 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

171. Samsung received notice of the '549 patent at least as of the date this complaint was filed and served.

172. Samsung designed the infringing products such that they would each infringe one or more claims of the '549 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '549

patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '549 patent.

173. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '549 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '549 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '549 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '549 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

174. Samsung indirectly infringes the '549 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States.

Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

175. Samsung received notice of the '549 patent at least as of the date this complaint was filed and served.

176. Samsung's infringing products allow for the modulation of an information signal. When the infringing products are used to modulate an information signal to create an angle modulated harmonically rich signal as claimed in the '549 patent, the infringing products must necessarily modulate an information signal in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to modulate an information signal.

177. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is especially made or especially adapted to operate on Samsung's infringing products.

178. A reasonable inference to be drawn from the facts set forth is that the ability to modulate an information signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

179. Samsung's infringing products, with the ability to modulate an information signal, are each a material part of the invention of the '549 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '549 patent. Because the manufacturing, offering for sale, sales, and use of the

infringing products infringe one or more claims of the '549 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

180. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '549 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

181. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and indirectly, one or more claims of the '549 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

182. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT IV: INFRINGEMENT OF THE '836 PATENT

183. ParkerVision repeats and realleges the allegations in paragraphs 1-182 as though fully set forth herein.

Qualcomm Infringes the '836 Patent

184. Qualcomm has infringed and continues to directly infringe the '836 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '836 patent. Qualcomm products that infringe one or more claims of the '836 patent include, but are not limited to, the QSC6270 combination RF transceiver-baseband chip, chipsets that include, for example and without limitation, an RTR6285 transceiver and QSD8250 baseband, and any other Qualcomm device or combination of devices that is capable of operation on multiple standards and/or protocols as claimed in the '836 patent.

185. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '836 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '836 patent.

186. Qualcomm has induced and continues to induce and contribute to infringement of the '836 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '836 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '836 patent.

187. Qualcomm indirectly infringes the '836 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States.

Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

188. Qualcomm has had knowledge of the '836 patent since at least February 2011, as ParkerVision's '836 Patent is cited within the following Qualcomm patents: (a) 8,170,494 and (b) 8,498,589. Qualcomm expressly disclosed the '836 Patent to the United States Patent and Trademark Office ("PTO") as part of the patent prosecution of its own '589 patent. Furthermore, Qualcomm had actual knowledge of or was willfully blind to the '836 patent before this lawsuit was filed. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including ParkerVision's 6,370,371 patent covering down-conversion technology and from which the '836 patent is a continuation-in-part, and Qualcomm at least remained willfully blind to the existence of the '836 patent. At the latest, Qualcomm received notice of the '836 patent as of the date this lawsuit was filed.

189. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '836 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '836 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '836 patent.

190. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of

the '836 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '836 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '836 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on North American bands of UMTS. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '836 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

191. Qualcomm indirectly infringes the '836 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

192. Qualcomm received notice of the '836 patent at least as of the date this lawsuit was filed. Qualcomm had actual knowledge of or remained willfully blind to the '836 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 188.

193. Qualcomm's infringing products allow for the operation on multiple standards and/or protocols. When the infringing products are used to operate on multiple standards and/or protocols as claimed in the '836 patent over carrier networks and/or wi-fi networks, the infringing products must necessarily operate in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to operate on multiple standards and/or protocols.

194. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is especially made or especially adapted to operate on Qualcomm's infringing products.

195. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

196. Qualcomm's infringing products, with the ability to operate on multiple standards and/or protocols, are each a material part of the invention of the '836 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '836 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '836 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

197. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or

composition, or a material or apparatus for use in practicing one or more claims of the '836 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

198. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '836 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

199. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

200. Qualcomm has known about the '836 patent, as set forth *supra* at Paragraph 188. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '836 Patent

201. HTC has infringed and continues to directly infringe the '836 patent by making, using, selling, offering for sale, or importing into the United States products

and/or methods covered by one or more claims of the '836 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '836 patent include, but are not limited to, the HTC Surround handset (that incorporates Qualcomm's RTR6285 RF transceiver and QSD8250 baseband processor) and any other HTC device that incorporates a Qualcomm device or combination of devices that is capable of operation on multiple standards and/or protocols as claimed in the '836 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '836 patent.

202. HTC has induced and continues to induce and contribute to infringement of the '836 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '836 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '836 patent. For example, HTC provides manuals, support overview, and downloads for the HTC Surround, as documented at <https://web.archive.org/web/20121030083846/http://www.htc.com/us/smartphones/htc-surround-att/>.

203. HTC indirectly infringes the '836 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct

infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

204. HTC received notice of the '836 patent at least as of the date this complaint was filed and served.

205. HTC designed the infringing products such that they would each infringe one or more claims of the '836 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '836 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '836 patent.

206. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '836 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '836 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '836 patent. HTC thus

knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on North American bands of UMTS. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '836 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

207. HTC indirectly infringes the '836 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

208. HTC received notice of the '836 patent at least as of the date this lawsuit was filed and served.

209. HTC's infringing products allow for the operation on multiple standards and/or protocols. When the infringing products are used to operate on multiple standards and/or protocols as claimed in the '836 patent over carrier networks and/or wi-fi networks, the infringing products must necessarily operate in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to operate on multiple standards and/or protocols.

210. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is especially made or especially adapted to operate on HTC's infringing products.

211. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is not a staple article or commodity of

commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

212. HTC's infringing products, with the ability to operate on multiple standards and/or protocols, are each a material part of the invention of the '836 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '836 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '836 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

213. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '836 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

214. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '836 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

215. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '836 Patent

216. Samsung has infringed and continues to directly infringe the '836 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '836 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '836 patent include, but are not limited to, the Samsung Focus handset (that incorporates Qualcomm's RTR6285 RF transceiver and QSD8250 baseband processor) and any other Samsung device that incorporates a Qualcomm device or combination of devices that is capable of operation on multiple standards and/or protocols as claimed in the '836 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '836 patent.

217. Samsung has induced and continues to induce and contribute to infringement of the '836 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '836 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use

consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '836 patent.

218. Samsung indirectly infringes the '836 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Focus, as documented at

<http://www.samsung.com/us/support/owners/product/SGH-I917ZKAATT>.

219. Samsung received notice of the '836 patent at least as of the date this complaint was filed and served.

220. Samsung designed the infringing products such that they would each infringe one or more claims of the '836 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '836 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '836 patent.

221. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '836 patent in the United States. For example, Samsung provides instructions, user

guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '836 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '836 patent. Samsung provides infringing devices operable on North American bands of UMTS. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '836 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

222. Samsung indirectly infringes the '836 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

223. Samsung received notice of the '836 patent at least as of the date this lawsuit was filed and served.

224. Samsung's infringing products allow for the operation on multiple standards and/or protocols. When the infringing products are used to operate on multiple standards and/or protocols as claimed in the '836 patent over carrier networks and/or wi-fi networks, the infringing products must necessarily operate in an infringing manner. The infringing

products cannot operate in an acceptable manner absent the ability to operate on multiple standards and/or protocols.

225. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is especially made or especially adapted to operate on Samsung's infringing products.

226. A reasonable inference to be drawn from the facts set forth is that the ability to operate on multiple standards and/or protocols is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

227. Samsung's infringing products, with the ability to operate on multiple standards and/or protocols, are each a material part of the invention of the '836 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '836 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '836 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

228. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '836 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

229. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '836 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

230. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT V: INFRINGEMENT OF THE '372 PATENT

231. ParkerVision repeats and realleges the allegations in paragraphs 1-230 as though fully set forth herein.

Qualcomm Infringes the '372 Patent

232. Qualcomm has infringed and continues to directly infringe the '372 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '372 patent. Qualcomm products that infringe one or more claims of the '372 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of up-converting and modulating an information signal as claimed in the '372 patent.

233. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '372 patent.

Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '372 patent.

234. Qualcomm has induced and continues to induce and contribute to infringement of the '372 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '372 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '372 patent.

235. Qualcomm indirectly infringes the '372 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

236. Qualcomm has had knowledge of the '372 Patent since at least September 2010, as ParkerVision's '372 Patent is cited by Qualcomm within the following Qualcomm patents: (a) 8,498,237; (b) 8,504,099; (c) 8,542,658; (d) 8,553,644; and (e) 8,595,501. Furthermore, Qualcomm had actual knowledge or was willfully blind to the '372 patent before this lawsuit was filed. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '940 patent, from which the '372 patent is a continuation-in-part, as discussed *supra* in Paragraph 50, and at least remained willfully blind to the existence of the '372 patent upon

its issuance. At the latest, Qualcomm received notice of the '372 patent as of the date this lawsuit was filed.

237. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '372 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '372 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '372 patent.

238. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '372 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '372 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '372 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz

WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '372 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

239. Qualcomm indirectly infringes the '372 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

240. Qualcomm received notice of the '372 patent at least as of the date this lawsuit was filed. Qualcomm had actual knowledge of or remained willfully blind to the '372 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 236.

241. Qualcomm's infringing products allow for the up-conversion and modulation of an information signal. When the infringing products are used to up-convert and modulate an information signal as claimed in the '372 patent, the infringing products must necessarily up-convert and modulate an information signal in an infringing manner. Upon information and belief, the infringing products cannot operate in an acceptable manner absent the ability to up-convert and modulate an information signal.

242. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is especially made or especially adapted to operate on Qualcomm's infringing products.

243. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is not a staple article or commodity of

commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

244. Qualcomm's infringing products, with the ability to up-convert and modulate an information signal, are each a material part of the invention of the '372 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '372 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '372 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

245. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '372 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

246. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '372 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

247. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

248. Qualcomm has known about the '372 patent, as set forth *supra* at Paragraph 236. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '372 Patent

249. HTC has infringed and continues to directly infringe the '372 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '372 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '372 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable up-converting and modulating an information signal as claimed in the '372 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '372 patent.

250. HTC has induced and continues to induce and contribute to infringement of the '372 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '372 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '372 patent.

251. HTC indirectly infringes the '372 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

252. HTC received notice of the '372 patent at least as of the date this complaint was filed and served.

253. HTC designed the infringing products such that they would each infringe one or more claims of the '372 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '372 patent. Through its manufacture and sale of the infringing products, HTC specifically

intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '372 patent.

254. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '372 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '372 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '372 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '372 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

255. HTC indirectly infringes the '372 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

256. HTC received notice of the '372 patent at least as of the date this lawsuit was filed and served.

257. HTC's infringing products allow for the up-conversion and modulation of an information signal. When the infringing products are used to up-convert and modulate an information signal as claimed in the '372 patent, the infringing products must necessarily up-convert and modulate an information signal in an infringing manner. Upon information and belief, the infringing products cannot operate in an acceptable manner absent the ability to up-convert and modulate an information signal.

258. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is especially made or especially adapted to operate on HTC's infringing products.

259. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

260. HTC's infringing products, with the ability to up-convert and modulate an information signal, are each a material part of the invention of the '372 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '372 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '372 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

261. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '372 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

262. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '372 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

263. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '372 Patent

264. Samsung has infringed and continues to directly infringe the '372 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '372 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '372 patent include, but are not

limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable up-converting and modulating an information signal as claimed in the '372 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '372 patent.

265. Samsung has induced and continues to induce and contribute to infringement of the '372 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '372 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '372 patent.

266. Samsung indirectly infringes the '372 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

267. Samsung received notice of the '372 patent at least as of the date this complaint was filed and served.

268. Samsung designed the infringing products such that they would each infringe one or more claims of the '372 patent if made, used, sold, offered for sale, or imported into

the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '372 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '372 patent.

269. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '372 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '372 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '372 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '372 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

270. Samsung indirectly infringes the '372 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

271. Samsung received notice of the '372 patent at least as of the date this complaint was filed and served.

272. Samsung's infringing products allow for the up-conversion and modulation of an information signal. When the infringing products are used to up-convert and modulate an information signal as claimed in the '372 patent, the infringing products must necessarily up-convert and modulate an information signal in an infringing manner. Upon information and belief, the infringing products cannot operate in an acceptable manner absent the ability to up-convert and modulate an information signal.

273. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is especially made or especially adapted to operate on Samsung's infringing products.

274. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert and modulate an information signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

275. Samsung's infringing products, with the ability to up-convert and modulate an information signal, are each a material part of the invention of the '372 patent and are

especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '372 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '372 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

276. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '372 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

277. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '372 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

278. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT VI: INFRINGEMENT OF THE '508 PATENT

279. ParkerVision repeats and realleges the allegations in paragraphs 1-278 as though fully set forth herein.

Qualcomm Infringes the '508 Patent

280. Qualcomm has infringed and continues to directly infringe the '508 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '508 patent. Qualcomm products that infringe one or more claims of the '508 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of up-converting a lower-frequency signal to a higher-frequency signal as claimed in the '508 patent.

281. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '508 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '508 patent.

282. Qualcomm has induced and continues to induce and contribute to infringement of the '508 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '508 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '508 patent.

283. Qualcomm indirectly infringes the '508 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States.

Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

284. Qualcomm had actual knowledge of or was willfully blind to the '508 patent before this lawsuit was filed. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '940 patent covering similar up-conversion technology and from which the '508 patent is a continuation-in-part, and at least remained willfully blind to the existence of the '508 patent. At the latest, Qualcomm received notice of the '508 patent as of the date this lawsuit was filed.

285. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '508 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '508 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '508 patent.

286. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '508 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use

customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '508 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '508 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '508 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

287. Qualcomm indirectly infringes the '508 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

288. Qualcomm received notice of the '508 patent at least as of the date this lawsuit was filed. It is believed that Qualcomm had actual knowledge of or remained willfully blind to the '508 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 284.

289. Qualcomm's infringing products allow for the up-conversion of a lower-frequency signal to a higher-frequency signal. When the infringing products are used to up-convert a lower-frequency signal to a higher-frequency signal as claimed in the '508

patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

290. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

291. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

292. Qualcomm's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '508 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '508 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '508 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

293. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '508 patent, constituting a material part of the invention, knowing the same to be especially

made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

294. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '508 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

295. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

296. Qualcomm has known about the '508 patent, as set forth *supra* at Paragraph 284. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '508 Patent

297. HTC has infringed and continues to directly infringe the '508 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '508 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the

infringing products that infringe one or more claims of the '508 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of up-converting a lower-frequency signal to a higher-frequency signal as claimed in the '508 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '508 patent.

298. HTC has induced and continues to induce and contribute to infringement of the '508 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '508 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '508 patent.

299. HTC indirectly infringes the '508 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

300. HTC received notice of the '508 patent at least as of the date this complaint was filed and served.

301. HTC designed the infringing products such that they would each infringe one or more claims of the '508 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '508 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '508 patent.

302. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '508 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '508 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '508 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would

induce actual infringement, with knowledge or willful blindness of the '508 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

303. HTC indirectly infringes the '508 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

304. HTC received notice of the '508 patent at least as of the date this lawsuit was filed.

305. HTC's infringing products allow for the up-conversion of a lower-frequency signal to a higher-frequency signal. When the infringing products are used to up-convert a lower-frequency signal to a higher-frequency signal as claimed in the '508 patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

306. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

307. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

308. HTC's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '508 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '508 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '508 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

309. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '508 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

310. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '508 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

311. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate

remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '508 Patent

312. Samsung has infringed and continues to directly infringe the '508 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '508 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '508 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of up-converting a lower-frequency signal to a higher-frequency signal as claimed in the '508 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '508 patent.

313. Samsung has induced and continues to induce and contribute to infringement of the '508 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '508 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '508 patent.

314. Samsung indirectly infringes the '508 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in

accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

315. Samsung received notice of the '508 patent at least as of the date this complaint was filed and served.

316. Samsung designed the infringing products such that they would each infringe one or more claims of the '508 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '508 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '508 patent.

317. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '508 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '508 patent. Samsung knows that by providing

such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '508 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '508 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

318. Samsung indirectly infringes the '508 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

319. Samsung received notice of the '508 patent at least as of the date this lawsuit was filed.

320. Samsung's infringing products allow for the up-conversion of a lower-frequency signal to a higher-frequency signal. When the infringing products are used to up-convert a lower-frequency signal to a higher-frequency signal as claimed in the '508 patent, the infringing products must necessarily up-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to up-convert a lower-frequency signal to a higher-frequency signal.

321. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is especially made or especially adapted to operate on Samsung's infringing products.

322. A reasonable inference to be drawn from the facts set forth is that the ability to up-convert a lower-frequency signal to a higher-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

323. Samsung's infringing products, with the ability to up-convert a lower-frequency signal to a higher-frequency signal, are each a material part of the invention of the '508 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '508 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '508 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

324. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '508 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

325. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '508 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

326. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT VII: INFRINGEMENT OF THE '246 PATENT

327. ParkerVision repeats and realleges the allegations in paragraphs 1-324 as though fully set forth herein.

Qualcomm Infringes the '246 Patent

328. Qualcomm has directly infringed and continues to directly infringe the '246 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '246 patent. Qualcomm products that infringe one or more claims of the '246 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '246 patent.

329. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes at least one or more claims of the '246 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '246 patent.

330. Qualcomm has induced and continues to induce and contribute to infringement of the '246 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '246 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '246 patent.

331. Qualcomm indirectly infringes the '246 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

332. Qualcomm has had actual knowledge of or was willfully blind to the '246 patent since the '246 patent issued. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '551 patent covering similar down-conversion technology, and at least remained willfully blind to the existence of the '246 patent. At the latest, Qualcomm received notice of the '246 patent as of the date this lawsuit was filed.

333. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '246 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '246 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '246 patent.

334. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '246 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '246 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '246 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with

knowledge or willful blindness of the '246 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

335. Qualcomm indirectly infringes the '246 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

336. Qualcomm received notice of the '246 patent at least as of the date this complaint was filed. Qualcomm also had actual knowledge of or remained willfully blind to the '246 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 332.

337. Qualcomm's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '246 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

338. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

339. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the

infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

340. Qualcomm's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '246 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Qualcomm's infringing products are especially made or adapted to infringe one or more claims of the '246 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '246 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

341. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '246 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

342. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '246 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

343. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

344. Qualcomm has known about the '246 patent, as set forth *supra* at Paragraph 332. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '246 Patent

345. HTC has infringed and continues to directly infringe the '246 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '246 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '246 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '246 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '246 patent.

346. HTC has induced and continues to induce and contribute to infringement of the '246 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '246 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '246 patent.

347. HTC indirectly infringes the '246 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers,

resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

348. HTC received notice of the '246 patent at least as of the date this complaint was filed and served.

349. At the latest, HTC received notice of the '246 patent as of the date this lawsuit was filed and served.

350. HTC designed the infringing products such that they would each infringe one or more claims of the '246 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '246 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '246 patent.

351. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '246 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '246 patent. HTC knows that by providing such instructions, user

guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '246 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '246 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

352. HTC indirectly infringes the '246 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

353. HTC received notice of the '246 patent at least as of the date this complaint was filed.

354. HTC's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '246 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

355. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

356. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

357. HTC's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '246 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. HTC's infringing products are especially made or adapted to infringe one or more claims of the '246 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '246 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

358. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '246 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

359. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '246 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

360. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '246 Patent

361. Samsung has infringed and continues to directly infringe the '246 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '246 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '246 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '246 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '246 patent.

362. Samsung has induced and continues to induce and contribute to infringement of the '246 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '246 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '246 patent.

363. Samsung indirectly infringes the '246 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers,

customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

364. Samsung received notice of the '246 patent at least as of the date this complaint was filed and served.

365. At the latest, Samsung received notice of the '246 patent as of the date this lawsuit was filed.

366. Samsung designed the infringing products such that they would each infringe one or more claims of the '246 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '246 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '246 patent.

367. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '246 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '246 patent. Samsung knows that by providing

such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '246 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '246 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

368. Samsung indirectly infringes the '246 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

369. Samsung received notice of the '246 patent at least as of the date this complaint was filed.

370. Samsung's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '246 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

371. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

372. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

373. Samsung's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '246 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Samsung's infringing products are especially made or adapted to infringe one or more claims of the '246 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '246 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

374. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '246 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

375. As a direct and proximate consequence of the acts and practices of Samsung in directly infringing one or more claims of the '246 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

376. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT VIII: INFRINGEMENT OF THE '907 PATENT

377. ParkerVision repeats and realleges the allegations in paragraphs 1-376 as though fully set forth herein.

Qualcomm Infringes the '907 Patent

378. Qualcomm has directly infringed and continues to directly infringe the '907 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '907 patent. Qualcomm products that infringe one or more claims of the '907 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '907 patent.

379. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes at least one or more claims of the '907 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '907 patent.

380. Qualcomm has induced and continues to induce and contribute to infringement of the '907 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '907 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '907 patent.

381. Qualcomm indirectly infringes the '907 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

382. Qualcomm has had actual knowledge of or was willfully blind to the '907 patent since the '907 patent issued. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '551 patent covering similar down-conversion technology, and at least remained willfully blind to the existence of the '907 patent. At the latest, Qualcomm received notice of the '907 patent as of the date this lawsuit was filed.

383. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '907 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '907 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '907 patent.

384. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '907 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '907 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '907 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with

knowledge or willful blindness of the '907 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

385. Qualcomm indirectly infringes the '907 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

386. Qualcomm received notice of the '907 patent at least as of the date this complaint was filed. Qualcomm also had actual knowledge of or remained willfully blind to the '907 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 382.

387. Qualcomm's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '907 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

388. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

389. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the

infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

390. Qualcomm's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '907 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Qualcomm's infringing products are especially made or adapted to infringe one or more claims of the '907 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '907 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

391. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '907 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

392. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '907 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

393. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

394. Qualcomm has known about the '907 patent, as set forth *supra* at Paragraph 382. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '907 Patent

395. HTC has infringed and continues to directly infringe the '907 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '907 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '907 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '907 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '907 patent.

396. HTC has induced and continues to induce and contribute to infringement of the '907 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '907 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '907 patent.

397. HTC indirectly infringes the '907 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

398. HTC received notice of the '907 patent at least as of the date this complaint was filed and served.

399. HTC designed the infringing products such that they would each infringe one or more claims of the '907 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '907 patent. Through its manufacture and sale of the infringing products, HTC specifically

intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '907 patent.

400. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '907 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '907 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '907 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '907 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

401. HTC indirectly infringes the '907 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

402. HTC received notice of the '907 patent at least as of the date this complaint was filed and served.

403. HTC's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '907 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

404. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

405. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

406. HTC's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '907 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. HTC's infringing products are especially made or adapted to infringe one or more claims of the '907 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of

the '907 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

407. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '907 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

408. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '907 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

409. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '907 Patent

410. Samsung has infringed and continues to directly infringe the '907 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '907 patent. The infringing products

include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '907 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '907 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '907 patent.

411. Samsung has induced and continues to induce and contribute to infringement of the '907 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '907 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '907 patent.

412. Samsung indirectly infringes the '907 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

413. Samsung received notice of the '907 patent at least as of the date this complaint was filed and served.

414. Samsung designed the infringing products such that they would each infringe one or more claims of the '907 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '907 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '907 patent.

415. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '907 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '907 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '907 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band

that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '907 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

416. Samsung indirectly infringes the '907 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

417. Samsung received notice of the '907 patent at least as of the date this complaint was filed and served.

418. Samsung's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '907 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

419. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Samsung's infringing products.

420. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple

article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

421. Samsung's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '907 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Samsung's infringing products are especially made or adapted to infringe one or more claims of the '907 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '907 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

422. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '907 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '907 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

423. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT IX: INFRINGEMENT OF THE '177 PATENT

424. ParkerVision repeats and realleges the allegations in paragraphs 1-423 as though fully set forth herein.

Qualcomm Infringes the '177 Patent

425. Qualcomm has directly infringed and continues to directly infringe the '177 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '177 patent. Qualcomm products that infringe one or more claims of the '177 patent include, but are not limited to, the RTR8600, QTR8200, and any other Qualcomm device that is capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '177 patent.

426. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes at least one or more claims of the '177 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '177 patent.

427. Qualcomm has induced and continues to induce and contribute to infringement of the '177 patent by intending that others make, use, import into, offer for

sale, or sell in the United States, products and/or methods covered by one or more claims of the '177 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '177 patent.

428. Qualcomm indirectly infringes the '177 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

429. Qualcomm has had actual knowledge of or was willfully blind to the '177 patent since the '177 patent issued. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents, including the '551 patent covering similar down-conversion technology, and at least remained willfully blind to the existence of the '177 patent. At the latest, Qualcomm received notice of the '177 patent as of the date this lawsuit was filed.

430. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '177 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '177 patent. Through its manufacture and sale of the infringing products,

Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '177 patent.

431. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '177 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '177 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '177 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '177 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

432. Qualcomm indirectly infringes the '177 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the

United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

433. Qualcomm received notice of the '177 patent at least as of the date this complaint was filed. Qualcomm also had actual knowledge of or remained willfully blind to the '177 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 429.

434. Qualcomm's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '177 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

435. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Qualcomm's infringing products.

436. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

437. Qualcomm's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '177 patent and are especially made for the infringing manufacturing, offering for sale,

sales, and use of the infringing products. Qualcomm's infringing products are especially made or adapted to infringe one or more claims of the '177 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '177 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

438. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '177 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

439. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '177 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

440. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

441. Qualcomm has known about the '177 patent, as set forth *supra* at Paragraph 429. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '177 Patent

442. HTC has infringed and continues to directly infringe the '177 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '177 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '177 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's RTR8600), the HTC Flyer tablet (that incorporates Qualcomm's QTR8200), and any other HTC device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '177 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '177 patent.

443. HTC has induced and continues to induce and contribute to infringement of the '177 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '177 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn,

use, offer for sale, or sell in the United States these products that infringe one or more claims of the '177 patent.

444. HTC indirectly infringes the '177 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

445. HTC has received notice of the '177 patent at least as of the date this complaint was filed and served.

446. HTC designed the infringing products such that they would each infringe one or more claims of the '177 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '177 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '177 patent.

447. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '177 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or

end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '177 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '177 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '177 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

448. HTC indirectly infringes the '177 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

449. HTC received notice of the '177 patent at least as of the date this complaint was filed and served.

450. HTC's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '177 patent, the infringing products must

necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

451. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on HTC's infringing products.

452. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

453. HTC's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '177 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. HTC's infringing products are especially made or adapted to infringe one or more claims of the '177 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '177 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

454. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '177 patent, constituting a material part of the invention, knowing the same to be especially

made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

455. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '177 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

456. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '177 Patent

457. Samsung has infringed and continues to directly infringe the '177 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '177 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '177 patent include, but are not limited to, the Samsung Galaxy S3 cellular telephone handset (that incorporates Qualcomm's RTR8600) and any other Samsung device that incorporates a Qualcomm device capable of down-conversion of a higher-frequency signal to a lower-frequency signal as claimed in the '177 patent. Samsung makes, uses, sells, offers for sale, or imports

into the United States these products and thus directly infringes one or more claims of the '177 patent.

458. Samsung has induced and continues to induce and contribute to infringement of the '177 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '177 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who, in turn, use, offer for sale, or sell in the United States these products that infringe one or more claims of the '177 patent.

459. Samsung indirectly infringes the '177 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Galaxy S3, as documented at <http://www.samsung.com/us/mobile/cell-phones/SGH-T999NBATMB>.

460. Samsung has received notice of the '177 patent at least as of the date this complaint was filed and served.

461. Samsung designed the infringing products such that they would each infringe one or more claims of the '177 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '177

patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '177 patent.

462. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '177 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '177 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '177 patent. Samsung thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '177 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

463. Samsung indirectly infringes the '177 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States.

Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

464. Samsung received notice of the '177 patent at least as of the date this complaint was filed.

465. Samsung's infringing products allow for the down-conversion of a higher-frequency signal, *e.g.*, a carrier signal, to a lower-frequency signal, *e.g.*, a baseband signal. When the infringing products are used to down-convert the higher-frequency signal to a lower-frequency signal as claimed in the '177 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert a higher-frequency signal to a lower-frequency signal.

466. A reasonable inference to be drawn from the facts set forth above is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is especially made or especially adapted to operate on Samsung's infringing products.

467. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert a higher-frequency signal to a lower-frequency signal is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

468. Samsung's infringing products, with the ability to down-convert a higher-frequency signal to a lower-frequency signal, are each a material part of the invention of the '177 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. Samsung's infringing products are especially

made or adapted to infringe one or more claims of the '177 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '177 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

469. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '177 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

470. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '177 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

471. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT X: INFRINGEMENT OF THE '012 PATENT

472. ParkerVision repeats and realleges the allegations in paragraphs 1-471 as though fully set forth herein.

Qualcomm Infringes the '012 Patent

473. Qualcomm has infringed and continues to directly infringe the '012 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '012 patent. Qualcomm products that infringe one or more claims of the '012 patent include, but are not limited to, a chipset that includes WCN3660, RTR8600, and MSM8960, and any other Qualcomm device or combination of devices that is capable of interfacing between broadband wireless communications systems and Local Area Networks ("LAN") systems as claimed in the '012 patent.

474. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '012 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '012 patent.

475. Qualcomm has induced and continues to induce and contribute to infringement of the '012 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '012 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '012 patent.

476. Qualcomm indirectly infringes the '012 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

477. Qualcomm had actual knowledge of or was willfully blind to the '012 patent before this lawsuit was filed. As made public in the prior litigation between the parties, Qualcomm had actual knowledge of several ParkerVision patents and at least remained willfully blind to the existence of the '012 patent. At the latest, Qualcomm received notice of the '012 patent as of the date this lawsuit was filed.

478. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '012 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '012 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '012 patent.

479. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '012 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an

infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '012 patent. Qualcomm knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '012 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '012 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

480. Qualcomm indirectly infringes the '012 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

481. Qualcomm received notice of the '012 patent at least as of the date this lawsuit was filed. It is believed that Qualcomm had actual knowledge of or remained willfully blind to the '012 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 477.

482. Qualcomm's infringing products allow for the interfacing between broadband wireless communications systems and Local Area Network ("LAN") systems.

When the infringing products are used to interface between broadband wireless communications systems and LAN systems, the infringing products must necessarily interface in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to interface between broadband wireless communications systems and LAN systems.

483. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is especially made or especially adapted to operate on Qualcomm's infringing products.

484. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

485. Qualcomm's infringing products, with the ability to interface between broadband wireless communications systems and LAN systems, are each a material part of the invention of the '012 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '012 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '012 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

486. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or

composition, or a material or apparatus for use in practicing one or more claims of the '012 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

487. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '012 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

488. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

489. Qualcomm has known about the '012 patent, as set forth *supra* at Paragraph 477. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '012 Patent

490. HTC has infringed and continues to directly infringe the '012 patent by making, using, selling, offering for sale, or importing into the United States products

and/or methods covered by one or more claims of the '012 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '012 patent include, but are not limited to, the HTC Evo 4G LTE cellular telephone handset (that incorporates Qualcomm's WCN3660, RTR8600, and MSM8960 chipset) and any other HTC device that incorporates a Qualcomm device or combination of devices that is capable of interfacing between broadband wireless communications systems and Local Area Networks ("LAN") systems as claimed in the '012 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '012 patent.

491. HTC has induced and continues to induce and contribute to infringement of the '012 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '012 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '012 patent. HTC indirectly infringes the '012 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Evo 4G LTE, as documented at <http://www.htc.com/us/smartphones/htc-evo-4g-lte/>.

492. HTC received notice of the '012 patent at least as of the date this complaint was filed and served.

493. HTC designed the infringing products such that they would each infringe one or more claims of the '012 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '012 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '012 patent.

494. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '012 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '012 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '012 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in

North America. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '012 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

495. HTC indirectly infringes the '012 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

496. HTC received notice of the '012 patent at least as of the date this lawsuit was filed and served.

497. HTC's infringing products allow for the interfacing between broadband wireless communications systems and Local Area Network ("LAN") systems. When the infringing products are used to interface between broadband wireless communications systems and LAN systems, the infringing products must necessarily interface in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to interface between broadband wireless communications systems and LAN systems.

498. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is especially made or especially adapted to operate on HTC's infringing products.

499. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is not a staple article or commodity of commerce and that its use is required for operation of the

infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

500. HTC's infringing products, with the ability to interface between broadband wireless communications systems and LAN systems, are each a material part of the invention of the '012 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '012 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '012 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

501. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '012 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

502. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly or indirectly, one or more claims of the '012 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

503. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '012 Patent

504. Samsung has infringed and continues to directly infringe the '012 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '012 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '012 patent include, but are not limited to, the Samsung Stratosphere II cellular telephone handset (that incorporates Qualcomm's WCN3660, RTR8600, and MSM8960 chipset) and any other Samsung device that incorporates a Qualcomm device or combination of devices that is capable of interfacing between broadband wireless communications systems and Local Area Networks ("LAN") systems as claimed in the '012 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '012 patent.

505. Samsung has induced and continues to induce and contribute to infringement of the '012 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '012 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use

consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '012 patent.

506. Samsung indirectly infringes the '012 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Stratosphere II, as documented at <http://www.samsung.com/us/support/owners/product/SCH-I415SAAVZW>.

507. Samsung received notice of the '012 patent at least as of the date this complaint was filed and served.

508. Samsung designed the infringing products such that they would each infringe one or more claims of the '012 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '012 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '012 patent.

509. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '012 patent in the United States. For example, Samsung provides instructions, user

guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '012 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '012 patent. Samsung thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on 1900 MHz WCDMA, the WCDMA band that is used in North America. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '012 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

510. Samsung indirectly infringes the '012 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

511. Samsung received notice of the '012 patent at least as of the date this lawsuit was filed.

512. Samsung's infringing products allow for the interfacing between broadband wireless communications systems and Local Area Network ("LAN") systems. When the

infringing products are used to interface between broadband wireless communications systems and LAN systems, the infringing products must necessarily interface in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to interface between broadband wireless communications systems and LAN systems.

513. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is especially made or especially adapted to operate on Samsung's infringing products.

514. A reasonable inference to be drawn from the facts set forth is that the ability to interface between broadband wireless communications systems and LAN systems is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

515. Samsung's infringing products, with the ability to interface between broadband wireless communications systems and LAN systems, are each a material part of the invention of the '012 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '012 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '012 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

516. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or

composition, or a material or apparatus for use in practicing one or more claims of the '012 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

517. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '012 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

518. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

COUNT XI: INFRINGEMENT OF THE '116 PATENT

519. ParkerVision repeats and realleges the allegations in paragraphs 1-518 as though fully set forth herein.

Qualcomm Infringes the '116 Patent

520. Qualcomm has infringed and continues to directly infringe the '116 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '116 patent. Qualcomm products that infringe one or more claims of the '116 patent include, but are not limited to, the QSC6270

combination RF transceiver-baseband chip, chipsets that include, for example and without limitation, an RTR6285 transceiver and QSD8250 baseband, and any other Qualcomm device or combination of devices that is capable of down-converting an input signal with an energy transfer control signal comprised of a plurality of pulses as claimed in the '116 patent.

521. Qualcomm makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '116 patent. Upon information and belief, Qualcomm also uses these products via its internal use and testing in the United States, directly infringing one or more claims of the '116 patent.

522. Qualcomm has induced and continues to induce and contribute to infringement of the '116 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '116 patent including, but not limited to, Qualcomm's products listed above. Qualcomm provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '116 patent.

523. Qualcomm indirectly infringes the '116 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

524. Qualcomm had actual knowledge of or was willfully blind to the '116 patent before this lawsuit was filed. As made public in the prior litigation between the parties,

Qualcomm had actual knowledge of several ParkerVision patents, including the '551 patent covering complementary receiver technology and from which the '116 patent is a continuation-in-part, and at least remained willfully blind to the existence of the '116 patent. In addition, as part of the prior negotiations between the parties, ParkerVision made known to Qualcomm that it was patenting its energy transfer sampling technology with an energy transfer control signal comprising a plurality of pulses. At the latest, Qualcomm received notice of the '116 patent as of the date this lawsuit was filed.

525. Qualcomm designed the infringing products such that they would each infringe one or more claims of the '116 patent if made, used, sold, offered for sale, or imported into the United States. Qualcomm provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '116 patent. Through its manufacture and sale of the infringing products, Qualcomm specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '116 patent.

526. Qualcomm specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '116 patent in the United States. For example, Qualcomm provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of Qualcomm's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '116 patent. Qualcomm knows that by

providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '116 patent. Qualcomm thus knows that its actions actively induce infringement. As another example, Qualcomm provides infringing devices operable on North American bands of UMTS, for example bands 2, 4, and 5 of UMTS. Qualcomm performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '116 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

527. Qualcomm indirectly infringes the '116 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

528. Qualcomm received notice of the '116 patent at least as of the date this lawsuit was filed. It is believed that Qualcomm had actual knowledge of or remained willfully blind to the '116 patent before the filing of this lawsuit, as set forth *supra* at Paragraph 524.

529. Qualcomm's infringing products allow for the down-conversion of an input signal with an energy transfer control signal comprised of a plurality of pulses. When the infringing products are used to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses as claimed in the '116 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing

products cannot operate in an acceptable manner absent the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses.

530. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses is especially made or especially adapted to operate on Qualcomm's infringing products.

531. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

532. Qualcomm's infringing products, with the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses, are each a material part of the invention of the '116 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '116 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '116 patent, Qualcomm's sales of its infringing products have no substantial non-infringing uses.

533. Accordingly, a reasonable inference is that Qualcomm offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '116 patent, constituting a material part of the invention, knowing the same to be especially

made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

534. As a direct and proximate consequence of the acts and practices of Qualcomm in infringing, directly and/or indirectly, one or more claims of the '116 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

535. In addition, the infringing acts and practices of Qualcomm have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

536. Qualcomm has known about the '116 patent, as set forth *supra* at Paragraph 524. Moreover, Qualcomm lacks justifiable belief that there is no infringement, or that the infringed claims are invalid, and has acted with objective recklessness in its infringing activity. Qualcomm's infringement is therefore willful, and ParkerVision is entitled to an award of exemplary damages, attorneys' fees, and costs in bringing this action.

HTC Infringes the '116 Patent

537. HTC has infringed and continues to directly infringe the '116 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '116 patent. The infringing products include HTC products that include Qualcomm infringing products. An example of the

infringing products that infringe one or more claims of the '116 patent include, but are not limited to, the HTC Surround handset (that incorporates Qualcomm's RTR6285 RF transceiver and QSD8250 baseband processor) and any other HTC device that incorporates a Qualcomm device or combination of devices that is capable of down-converting an input signal with an energy transfer control signal comprised of a plurality of pulses as claimed in the '116 patent. HTC makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '116 patent..

538. HTC has induced and continues to induce and contribute to infringement of the '116 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '116 patent including, but not limited to, HTC's products listed above. HTC provides these products to others, such as manufacturers, customers, resellers, and end-use consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '116 patent.

HTC indirectly infringes the '116 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, HTC provides manuals, support overview, and downloads for the HTC Surround, as documented at <https://web.archive.org/web/20121030083846/http://www.htc.com/us/smartphones/htc-surround-att/>

539. HTC received notice of the '116 patent at least as of the date this lawsuit was filed and served.

540. HTC designed the infringing products such that they would each infringe one or more claims of the '116 patent if made, used, sold, offered for sale, or imported into the United States. HTC provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '116 patent. Through its manufacture and sale of the infringing products, HTC specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '116 patent.

541. HTC specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '116 patent in the United States. For example, HTC provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers, and/or end-use customers regarding the use and operation of HTC's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '116 patent. HTC knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '116 patent. HTC thus knows that its actions actively induce infringement. As another example, HTC provides infringing devices operable on North American bands of UMTS, for example bands 2, 4,

and 5 of UMTS. HTC performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '116 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

542. HTC indirectly infringes the '116 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

543. HTC received notice of the '116 patent at least as of the date this lawsuit was filed and served.

544. HTC's infringing products allow for the down-conversion of an input signal with an energy transfer control signal comprised of a plurality of pulses. When the infringing products are used to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses as claimed in the '116 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses.

545. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses is especially made or especially adapted to operate on HTC's infringing products.

546. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a

plurality of pulses is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

547. HTC's infringing products, with the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses, are each a material part of the invention of the '116 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '116 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '116 patent, HTC's sales of its infringing products have no substantial non-infringing uses.

548. Accordingly, a reasonable inference is that HTC offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing one or more claims of the '116 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

549. As a direct and proximate consequence of the acts and practices of HTC in infringing, directly and/or indirectly, one or more claims of the '116 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

550. In addition, the infringing acts and practices of HTC have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

Samsung Infringes the '116 Patent

551. Samsung has infringed and continues to directly infringe the '116 patent by making, using, selling, offering for sale, or importing into the United States products and/or methods covered by one or more claims of the '116 patent. The infringing products include Samsung products that include Qualcomm infringing products. An example of the infringing products that infringe one or more claims of the '116 patent include, but are not limited to, the Samsung Focus handset (that incorporates Qualcomm's RTR6285 RF transceiver and QSD8250 baseband processor) and any other Samsung device that incorporates a Qualcomm device or combination of devices that is capable of down-converting an input signal with an energy transfer control signal comprised of a plurality of pulses as claimed in the '116 patent. Samsung makes, uses, sells, offers for sale, or imports into the United States these products and thus directly infringes one or more claims of the '116 patent.

552. Samsung has induced and continues to induce and contribute to infringement of the '116 patent by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '116 patent including, but not limited to, Samsung's products listed above. Samsung provides these products to others, such as manufacturers, customers, resellers, and end-use

consumers who in turn use, offer for sale, or sell in the United States these products that infringe one or more claims of the '116 patent.

553. Samsung indirectly infringes the '116 patent by inducing infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(b) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products. For example, Samsung provides manuals, support overview, and downloads for the Samsung Focus, as documented at <http://www.samsung.com/us/support/owners/product/SGH-I917ZKAATT>.

554. Samsung received notice of the '116 patent at least as of the date this lawsuit was filed and served.

555. Samsung designed the infringing products such that they would each infringe one or more claims of the '116 patent if made, used, sold, offered for sale, or imported into the United States. Samsung provides the infringing products to others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, who, in turn, offer for sale, sell, import into, or use these infringing products to infringe one or more claims of the '116 patent. Through its manufacture and sale of the infringing products, Samsung specifically intended its OEMs, manufacturers, customers, resellers, and/or end-use customers to infringe one or more claims of the '116 patent.

556. Samsung specifically intends for others, such as OEMs, manufacturers, customers, resellers, and/or end-use customers, to directly infringe one or more claims of the '116 patent in the United States. For example, Samsung provides instructions, user guides, and/or other design documentation to OEMs, manufacturers, customers, resellers,

and/or end-use customers regarding the use and operation of Samsung's products in an infringing way. When OEMs, manufacturers, customers, resellers, and/or end-use customers follow such instructions, user guides, and/or other design documentation, they directly infringe one or more claims of the '116 patent. Samsung knows that by providing such instructions, user guides, and/or other design documentation, OEMs, manufacturers, customers, resellers, and end-use customers follow those instructions, user guides, and other design documentation, and directly infringe one or more claims of the '116 patent. Samsung thus knows that its actions actively induce infringement. As another example, Samsung provides infringing devices operable on North American bands of UMTS, for example bands 2, 4, and 5 of UMTS. Samsung performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge or willful blindness of the '116 patent, and with knowledge or willful blindness that the induced acts would constitute infringement.

557. Samsung indirectly infringes the '116 patent by contributing to infringement by others, such as OEMs, manufacturers, customers, resellers, and end-use customers, in accordance with 35 U.S.C. § 271(c) in this District and elsewhere in the United States. Direct infringement is the result of activities performed by the OEMs, manufacturers, customers, resellers, and/or end-use customers of the infringing products.

558. Samsung received notice of the '116 patent at least as of the date this lawsuit was filed and served.

559. Samsung's infringing products allow for the down-conversion of an input signal with an energy transfer control signal comprised of a plurality of pulses. When the infringing products are used to down-convert an input signal with an energy transfer

control signal comprised of a plurality of pulses as claimed in the '116 patent, the infringing products must necessarily down-convert in an infringing manner. The infringing products cannot operate in an acceptable manner absent the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses.

560. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses is especially made or especially adapted to operate on Qualcomm's infringing products.

561. A reasonable inference to be drawn from the facts set forth is that the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses is not a staple article or commodity of commerce and that its use is required for operation of the infringing products. Any other use would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

562. Samsung's infringing products, with the ability to down-convert an input signal with an energy transfer control signal comprised of a plurality of pulses, are each a material part of the invention of the '116 patent and are especially made for the infringing manufacturing, offering for sale, sales, and use of the infringing products. The infringing products are especially made or adapted to infringe one or more claims of the '116 patent. Because the manufacturing, offering for sale, sales, and use of the infringing products infringe one or more claims of the '116 patent, Samsung's sales of its infringing products have no substantial non-infringing uses.

563. Accordingly, a reasonable inference is that Samsung offers to sell, or sells within the United States a component of a patented machine, manufacture, combination, or

composition, or a material or apparatus for use in practicing one or more claims of the '116 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

564. As a direct and proximate consequence of the acts and practices of Samsung in infringing, directly and/or indirectly, one or more claims of the '116 patent, ParkerVision has suffered, is suffering, and, unless such acts and practices are enjoined by the Court, will continue to suffer injury to its business and property rights. ParkerVision has also suffered, is suffering, and will continue to suffer injury and damages for which it is entitled to relief under 35 U.S.C. § 284, in an amount to be determined at trial.

565. In addition, the infringing acts and practices of Samsung have caused, are causing, and, unless such acts and practices are enjoined by the Court, will continue to cause immediate and irreparable harm to ParkerVision for which there is no adequate remedy at law, and for which ParkerVision is entitled to injunctive relief under 35 U.S.C. § 283.

PRAYER FOR RELIEF

WHEREFORE, ParkerVision respectfully requests that this Court enter judgment in its favor and grant the following relief:

A. a judgment that Defendants directly and/or indirectly infringe one or more claims of each of the patents-in-suit;

B. award ParkerVision damages in an amount adequate to compensate ParkerVision for Defendants' infringing products' infringement of the claims of the patents-in-suit, but in no event less than a reasonable royalty, and supplemental damages for any

continuing post-verdict infringement up until entry of the final judgment with an accounting as needed, under 35 U.S.C. § 284;

C. a judgment and order finding that Qualcomm's infringement is willful and deliberate, entitling ParkerVision to enhanced damages pursuant to 35 U.S.C. § 284;

D. award ParkerVision pre-judgment interest and post-judgment interest on the damages awarded, including pre-judgment interest, pursuant to 35 U.S.C. § 284, from the date of each act of infringement of the patents-in-suit by Defendants to the day a damages judgment is entered, and an award of post-judgment interest, pursuant to 28 U.S.C. § 1961, continuing until such judgment is paid, at the maximum rate allowed by law;

E. a judgment and order finding this to be an exceptional case and requiring Defendants to pay the costs of this action (including all disbursements) and attorneys' fees, pursuant to 35 U.S.C. § 285;

F. order an accounting for damages;

G. enter a permanent injunction enjoining Defendants, and all others in active concert with Defendants, from further infringement of the patents-in-suit;

H. award a compulsory future royalty for any patent of the patents-in-suit for which an injunction does not issue; and

I. award such further relief as the Court deems just and proper.

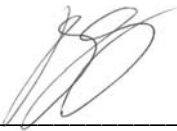
DEMAND FOR JURY TRIAL

ParkerVision hereby demands a jury for all issues so triable.

August 21, 2014

Respectfully submitted,

McKool Smith, P.C.



Douglas A. Cawley, Trial Counsel
Texas State Bar No. 04035500
E-mail: dcawley@mckoolsmith.com
Richard A. Kamprath
Texas State Bar No. 24078767
E-mail: rkamprath@mckoolsmith.com
McKool Smith P.C.
300 Crescent Court, Suite 1500
Dallas, Texas 75201
Telephone: (214) 978-4000
Telecopier: (214) 978-4044

Kevin L. Burgess
Texas State Bar No. 24006927
E-mail: kburgess@mckoolsmith.com
Josh W. Budwin
Texas State Bar No. 24050347
E-mail: jbudwin@mckoolsmith.com
Leah Buratti
Texas State Bar No. 24064897
E-mail: lburatti@mckoolsmith.com
Mario Apreotesi
Texas State Bar No. 24080772
E-mail: mapreotesi@mckoolsmith.com
McKool Smith P.C.
300 West Sixth Street, Suite 1700
Austin, Texas 78701
Telephone: (512) 692-8700
Telecopier: (512) 692-8744

SMITH HULSEY & BUSEY

/s/ James A. Bolling

Stephen D. Busey
James A. Bolling
Florida Bar Number 117790
Florida Bar Number 901253
Smith Hulsey & Busey
225 Water Street, Suite 1800
Jacksonville, Florida 32202
(904) 359-7700
(904) 359-7708 (facsimile)
jbolling@smithhulsey.com

*ATTORNEYS FOR PLAINTIFF
PARKERVISION, INC.*