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10 **UNITED STATES DISTRICT COURT**
11 **SOUTHERN DISTRICT OF CALIFORNIA**

12 SPH AMERICA, LLC,
13 Plaintiff,
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15 vs.
16 T-MOBILE US, INC.,
17 Defendant.
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Case No. 3:13-cv-02324-CAB-BLM

**SUPPLEMENTAL FIRST
AMENDED COMPLAINT FOR
PATENT INFRINGEMENT**

Jury Trial Demanded

RUSS, AUGUST & KABAT

1 This is an action for patent infringement arising under the Patent Laws of the
2 United States of America, 35 U.S.C. § 1 *et seq.* in which Plaintiff SPH America,
3 LLC (“SPH” or “Plaintiff”) makes the following allegations against Defendant T-
4 Mobile US, Inc. (“T-Mobile” or “Defendant”).

5 **I. PARTIES**

6 1. Plaintiff SPH America, LLC is a Virginia limited liability company
7 having a principal place of business at 8133 Leesburg Pike, Suite 310, Vienna,
8 Virginia 22182.

9 2. On information and belief, Defendant T-Mobile is a Delaware
10 Corporation with its principal place of business at 12920 SE 38th Street, Bellevue,
11 Washington, 98006.

12 **II. JURISDICTION AND VENUE**

13 3. This action arises under the patent laws of the United States, Title 35
14 of the United States Code. This Court has original subject matter jurisdiction
15 pursuant to 28 U.S.C. §§ 1331 and 1338(a).

16 4. On information and belief, Defendant is subject to this Court's specific
17 and general personal jurisdiction pursuant to due process and/or the California
18 Long Arm Statute, due to having availed itself of the rights and benefits of
19 California by engaging in activities, including: (i) conducting substantial business
20 in this forum; and (ii) engaging in other persistent courses of conduct, and/or
21 deriving substantial revenue from goods and services provided to individuals in
22 California and in this Judicial District.

23 5. Venue is proper in this district under 28 U.S.C. §§ 1391(b), 1391(c)
24 and 1400(b). On information and belief, Defendant has engaged in activities
25 including: transacting business in this district and purposefully directing its
26 business activities, including the sale of infringing goods, to this district.

COUNT I**INFRINGEMENT OF U.S. PATENT NO. RE 40,385**

6. Plaintiff SPH realleges and incorporates by reference paragraphs 1-5 above, as if fully set forth herein.

7. Plaintiff SPH is the exclusive licensee of United States Patent No. RE 40,385 (“the ‘385 patent”) titled “Orthogonal Complex Spreading Method For Multichannel And Apparatus Thereof.” The ‘385 patent was duly and legally issued by the United States Patent and Trademark Office on June 17, 2008. SPH is the exclusive licensee, possessing all substantial rights, to the ‘385 patent pursuant to a license from the Electronics and Telecommunications Research Institute, a South Korean non-profit research organization, the owner of the ‘385 patent.

8. On information and belief, T-Mobile operates a wireless communications network, and sells mobile handsets for use on a wireless network. On information and belief, T-Mobile also offers wireless communications services and sells mobile handsets for use on a wireless network through its MetroPCS mobile brand.

9. On information and belief, T-Mobile has infringed and continues to infringe the ‘385 patent by, among other things, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related thereto, covered by one or more claims of the ‘385 patent. Such unlicensed products include, by way of example and without limitation, mobile phones made by Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and the Galaxy S II, mobile phones made by Blackberry, including, without limitation the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile phones made by Huawei, including without limitation the T-Mobile Prism II, the Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are covered by one or more claims of the ‘385 patent, including but not limited to

1 claim 31. By making, using, offering for sale, and/or selling such systems, and
2 products and/or services related thereto, covered by one or more claims of the ‘385
3 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the ‘385
4 patent pursuant to 35 U.S.C. § 271.

5 10. T-Mobile was placed on notice of its infringement of the ‘385 Patent
6 no later than approximately February 10, 2012 as a result of a letter from SPH to
7 T-Mobile specifically identifying the ‘385 Patent and informing T-Mobile of its
8 infringing conduct.

9 11. On information and belief, T-Mobile has also infringed the ‘385
10 patent by inducing others, including users of unlicensed wireless handsets on its
11 networks, to infringe one or more claims of the ‘385 patent in violation of 35
12 U.S.C. § 271(b).

13 12. On information and belief, T-Mobile takes active steps to induce its
14 customers and network users to infringe the ‘385 patent by taking affirmative steps
15 to encourage and facilitate direct infringement by others with knowledge of that
16 infringement, such as, upon information and belief, by importing, offering for sale,
17 and/or selling products and/or services that when used as intended infringe the
18 ‘385 patent. For example, and without limitation, on information and belief, T-
19 Mobile advertises that customers can utilize mobile devices to communicate using
20 its network services for 3G communications that T-Mobile enables pursuant to
21 WCDMA technology. Since at least the time of the written communications from
22 SPH in February 2012, T-Mobile has had actual knowledge of the ‘385 patent and
23 that the use of products and services by its customers constituted direct
24 infringement of the ‘385 patent. Despite this knowledge, T-Mobile has continued
25 to offer these services, to facilitate and encourage infringing use of its services, and
26 to encourage its customers to use products and services from T-Mobile in a manner
27 that infringes the ‘385 patent.
28

1 13. On information and belief, T-Mobile has also infringed the ‘385
2 patent by contributing to the infringement of others, including users of unlicensed
3 wireless handsets on its networks, to infringe one or more claims of the ‘385 patent
4 in violation of 35 U.S.C. § 271(c).

5 14. On information and belief, T-Mobile sells devices that are a
6 component of the patented invention of the ‘385 patent or an apparatus for use in
7 practicing a patented process of the ‘385 patent and they are especially made or
8 especially adapted for use in infringement of the ‘385 patent. In particular, the
9 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
10 use in practicing one or more claimed processes of the ‘385 patent and are
11 especially made or especially adapted for use in practicing one or more claimed
12 processes of the ‘385 patent, including through use in communications using
13 WCDMA technology. T-Mobile sold these unlicensed devices despite its
14 knowledge that they were especially made or especially adapted for use in
15 infringement of the ‘385 patent. T-Mobile was put on notice of the infringing
16 nature of these goods since at least the time of the written communications from
17 SPH in February 2012.

18 15. T-Mobile undertook its actions of, *inter alia*, making, using, offering
19 for sale, and/or selling unlicensed systems, and products and/or services related
20 thereto despite an objectively high likelihood that such activities infringed the ‘385
21 patent, which has been duly issued by the United States Patent and Trademark
22 Office, and is presumed valid. Since at least the time of the written
23 communications from SPH in February 2012, T-Mobile has been aware of an
24 objectively high likelihood that its actions constituted, and continue to constitute,
25 infringement of the ‘385 patent and that the ‘385 patent is valid. Despite that
26 knowledge, on information and belief, T-Mobile has continued its infringing
27 activities. As such, T-Mobile willfully infringed the ‘385 patent.
28

16. As a result of T-Mobile's infringement of the '385 patent, Plaintiff SPH has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for T-Mobile's infringement, but in no event less than a reasonable royalty for the use made of the invention by T-Mobile, enhancement of damages due to T-Mobile's willful infringement, and interest and costs as fixed by the Court.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. RE 40,253

17. Plaintiff SPH realleges and incorporates by reference paragraphs 1-16 above, as if fully set forth herein.

18. Plaintiff SPH is the exclusive licensee of United States Patent No. RE 40,253 (“the ‘253 patent”) titled “Apparatus For Making A Random Access To the Reverse Common Channel Of A Base Station In CDMA And Method Therefor.” The ‘253 patent was duly and legally issued by the United States Patent and Trademark Office on April 22, 2008. SPH is the exclusive licensee, possessing all substantial rights, to the ‘253 patent pursuant to a license from the Electronics and Telecommunications Research Institute, a South Korean non-profit research organization, the owner of the ‘253 patent.

19. On information and belief, T-Mobile operates a wireless communications network, and sells mobile handsets for use on a wireless network. On information and belief, T-Mobile also offers wireless communications services and sells mobile handsets for use on a wireless network through its MetroPCS mobile brand.

20. On information and belief, T-Mobile has infringed and continues to infringe the '253 patent by, among other things, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related thereto, covered by one or more claims of the '253 patent. Such unlicensed products include, by way of example and without limitation, mobile phones made by

1 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
2 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
3 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
4 phones made by Huawei, including without limitation the T-Mobile Prism II, the
5 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
6 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
7 covered by one or more claims of the '253 patent, including but not limited to
8 claim 34. By making, using, offering for sale, and/or selling such systems, and
9 products and/or services related thereto, covered by one or more claims of the '253
10 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the '253
11 patent pursuant to 35 U.S.C. § 271.

12 21. T-Mobile was placed on notice of its infringement of the '253 Patent
13 no later than approximately February 10, 2012 as a result of a letter from SPH to
14 T-Mobile specifically identifying the '253 Patent and informing T-Mobile of its
15 infringing conduct.

16 22. On information and belief, T-Mobile has also infringed the '253
17 patent by inducing others, including users of unlicensed wireless handsets on its
18 networks to infringe one or more claims of the '253 patent in violation of 35
19 U.S.C. § 271(b).

20 23. On information and belief, T-Mobile takes active steps to induce its
21 customers and network users to infringe the '253 patent by taking affirmative steps
22 to encourage and facilitate direct infringement by others with knowledge of that
23 infringement, such as, upon information and belief, by importing, offering for sale,
24 and/or selling products and/or services that when used as intended infringe the
25 '253 patent. For example, and without limitation, on information and belief, T-
26 Mobile advertises that customers can utilize mobile devices to communicate using
27 its network services for 3G communications that T-Mobile enables pursuant to
28 WCDMA technology. Since at least the time of the written communications from

1 SPH in February 2012, T-Mobile has had actual knowledge of the ‘253 patent and
2 that the use of products and services by its customers constituted direct
3 infringement of the ‘253 patent. Despite this knowledge, T-Mobile has continued
4 to offer these services, to facilitate and encourage infringing use of its services, and
5 to encourage its customers to use products and services from T-Mobile in a manner
6 that infringes the ‘253 patent.

7 24. On information and belief, T-Mobile has also infringed the ‘253
8 patent by contributing to the infringement of others, including users of unlicensed
9 wireless handsets on its networks, to infringe one or more claims of the ‘253 patent
10 in violation of 35 U.S.C. § 271(c).

11 25. On information and belief, T-Mobile sells devices that are a
12 component of the patented invention of the ‘253 patent or an apparatus for use in
13 practicing a patented process of the ‘253 patent and they are especially made or
14 especially adapted for use in infringement of the ‘253 patent. In particular, the
15 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
16 use in practicing one or more claimed processes of the ‘253 patent and are
17 especially made or especially adapted for use in practicing one or more claimed
18 processes of the ‘253 patent, including through use in communications using
19 WCDMA technology. T-Mobile sold these unlicensed devices despite its
20 knowledge that they were especially made or especially adapted for use in
21 infringement of the ‘253 patent. T-Mobile was put on notice of the infringing
22 nature of these goods since at least the time of the written communications from
23 SPH in February 2012.

24 26. T-Mobile undertook its actions of, *inter alia*, making, using, offering
25 for sale, and/or selling unlicensed systems, and products and/or services related
26 thereto despite an objectively high likelihood that such activities infringed the ‘253
27 patent, which has been duly issued by the United States Patent and Trademark
28 Office, and is presumed valid. Since at least the time of the written

1 communications from SPH in February 2012, T-Mobile has been aware of an
2 objectively high likelihood that its actions constituted, and continue to constitute,
3 infringement of the ‘253 patent and that the ‘253 patent is valid. Despite that
4 knowledge, on information and belief, T-Mobile has continued its infringing
5 activities. As such, T-Mobile willfully infringed the ‘253 patent.

6 27. As a result of T-Mobile’s infringement of the ‘253 patent, Plaintiff
7 SPH has suffered monetary damages and is entitled to a money judgment in an
8 amount adequate to compensate for T-Mobile’s infringement, but in no event less
9 than a reasonable royalty for the use made of the invention by T-Mobile,
10 enhancement of damages due to T-Mobile’s willful infringement, and interest and
11 costs as fixed by the Court.

12 **COUNT III**

13 **INFRINGEMENT OF U.S. PATENT NO. 7,443,906**

14 28. Plaintiff SPH realleges and incorporates by reference paragraphs 1-27
15 above, as if fully set forth herein.

16 29. Plaintiff SPH is the exclusive licensee of United States Patent No.
17 7,443,906 (“the ‘906 patent”) titled “Apparatus and Method For Modulating Data
18 Message by Employing Orthogonal Variable Spreading Factor (OVSF) Codes In
19 Mobile Communication System.” The ‘906 patent was duly and legally issued by
20 the United States Patent and Trademark Office on October 28, 2008. SPH is the
21 exclusive licensee, possessing all substantial rights, to the ‘906 patent pursuant to a
22 license from the Electronics and Telecommunications Research Institute, a South
23 Korean non-profit research organization, the owner of the ‘906 patent.

24 30. On information and belief, T-Mobile operates a wireless
25 communications network, and sells mobile handsets for use on a wireless network.
26 On information and belief, T-Mobile also offers wireless communications services
27 and sells mobile handsets for use on a wireless network through its MetroPCS
28 mobile brand.

1 31. On information and belief, T-Mobile has infringed and continues to
2 infringe the ‘906 patent by, among other things, making, using, offering for sale,
3 and/or selling unlicensed systems, and products and/or services related thereto,
4 covered by one or more claims of the ‘906 patent. Such unlicensed products
5 include, by way of example and without limitation, mobile phones made by
6 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
7 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
8 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
9 phones made by Huawei, including without limitation the T-Mobile Prism II, the
10 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
11 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
12 covered by one or more claims of the ‘906 patent, including but not limited to
13 claim 14. By making, using, offering for sale, and/or selling such systems, and
14 products and/or services related thereto, covered by one or more claims of the ‘906
15 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the ‘906
16 patent pursuant to 35 U.S.C. § 271.

17 32. T-Mobile was placed on notice of its infringement of the ‘906 Patent
18 no later than approximately February 10, 2012 as a result of a letter from SPH to
19 T-Mobile specifically identifying the ‘906 Patent and informing T-Mobile of its
20 infringing conduct.

21 33. On information and belief, T-Mobile has also infringed the ‘906
22 patent by inducing others, including users of unlicensed wireless handsets on its
23 networks to infringe one or more claims of the ‘906 patent in violation of 35
24 U.S.C. § 271(b).

25 34. On information and belief, T-Mobile takes active steps to induce its
26 customers and network users to infringe the ‘906 patent by taking affirmative steps
27 to encourage and facilitate direct infringement by others with knowledge of that
28 infringement, such as, upon information and belief, by importing, offering for sale,

1 and/or selling products and/or services that when used as intended infringe the
2 '906 patent. For example, and without limitation, on information and belief, T-
3 Mobile advertises that customers can utilize mobile devices to communicate using
4 its network services for 3G communications that T-Mobile enables pursuant to
5 WCDMA technology. Since at least the time of the written communications from
6 SPH in February 2012, T-Mobile has had actual knowledge of the '906 patent and
7 that the use of products and services by its customers constituted direct
8 infringement of the '906 patent. Despite this knowledge, T-Mobile has continued
9 to offer these services, to facilitate and encourage infringing use of its services, and
10 to encourage its customers to use products and services from T-Mobile in a manner
11 that infringes the '906 patent.

12 35. On information and belief, T-Mobile has also infringed the '906
13 patent by contributing to the infringement of others, including users of unlicensed
14 wireless handsets on its networks, to infringe one or more claims of the '906 patent
15 in violation of 35 U.S.C. § 271(c).

16 36. On information and belief, T-Mobile sells devices that are a
17 component of the patented invention of the '906 patent or an apparatus for use in
18 practicing a patented process of the '906 patent and they are especially made or
19 especially adapted for use in infringement of the '906 patent. In particular, the
20 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
21 use in practicing one or more claimed processes of the '906 patent and are
22 especially made or especially adapted for use in practicing one or more claimed
23 processes of the '906 patent, including through use in communications using
24 WCDMA technology. T-Mobile sold these unlicensed devices despite its
25 knowledge that they were especially made or especially adapted for use in
26 infringement of the '906 patent. T-Mobile was put on notice of the infringing
27 nature of these goods since at least the time of the written communications from
28 SPH in February 2012.

37. T-Mobile undertook its actions of, *inter alia*, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related thereto despite an objectively high likelihood that such activities infringed the ‘906 patent, which has been duly issued by the United States Patent and Trademark Office, and is presumed valid. Since at least the time of the written communications from SPH in February 2012, T-Mobile has been aware of an objectively high likelihood that its actions constituted, and continue to constitute, infringement of the ‘906 patent and that the ‘906 patent is valid. Despite that knowledge, on information and belief, T-Mobile has continued its infringing activities. As such, T-Mobile willfully infringed the ‘906 patent.

38. As a result of T-Mobile's infringement of the '906 patent, Plaintiff SPH has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for T-Mobile's infringement, but in no event less than a reasonable royalty for the use made of the invention by T-Mobile, enhancement of damages due to T-Mobile's willful infringement, and interest and costs as fixed by the Court.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 5,960,029

39. Plaintiff SPH realleges and incorporates by reference paragraphs 1-38 above, as if fully set forth herein.

40. Plaintiff SPH is the exclusive licensee of United States Patent No. 5,960,029 (“the ‘029 patent”) titled “Coherent Dual-Channel QPSK Modulator/Demodulator For CDMA Systems, And Modulating/Demodulating Methods Therefor.” The ‘029 patent was duly and legally issued by the United States Patent and Trademark Office on September 28, 1999. SPH is the exclusive licensee, possessing all substantial rights, to the ‘029 patent pursuant to a license from the Electronics and Telecommunications Research Institute, a South Korean non-profit research organization, the owner of the ‘029 patent.

1 41. On information and belief, T-Mobile operates a wireless
2 communications network, and sells mobile handsets for use on a wireless network.
3 On information and belief, T-Mobile also offers wireless communications services
4 and sells mobile handsets for use on a wireless network through its MetroPCS
5 mobile brand.

6 42. On information and belief, T-Mobile has infringed and continues to
7 infringe the '029 patent by, among other things, making, using, offering for sale,
8 and/or selling unlicensed systems, and products and/or services related thereto,
9 covered by one or more claims of the '029 patent. Such unlicensed products
10 include, by way of example and without limitation, mobile phones made by
11 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
12 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
13 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
14 phones made by Huawei, including without limitation the T-Mobile Prism II, the
15 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
16 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
17 covered by one or more claims of the '029 patent, including but not limited to
18 claim 1. By making, using, offering for sale, and/or selling such systems, and
19 products and/or services related thereto, covered by one or more claims of the '029
20 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the '029
21 patent pursuant to 35 U.S.C. § 271.

22 43. T-Mobile was placed on notice of its infringement of the '029 Patent
23 no later than approximately February 10, 2012 as a result of a letter from SPH to
24 T-Mobile specifically identifying the '029 Patent and informing T-Mobile of its
25 infringing conduct.

26 44. On information and belief, T-Mobile has also infringed the '029
27 patent by inducing others, including users of unlicensed wireless handsets on its
28

1 networks to infringe one or more claims of the '029 patent in violation of 35
2 U.S.C. § 271(b).

3 45. On information and belief, T-Mobile takes active steps to induce its
4 customers and network users to infringe the '029 patent by taking affirmative steps
5 to encourage and facilitate direct infringement by others with knowledge of that
6 infringement, such as, upon information and belief, by importing, offering for sale,
7 and/or selling products and/or services that when used as intended infringe the
8 '029 patent. For example, and without limitation, on information and belief, T-
9 Mobile advertises that customers can utilize mobile devices to communicate using
10 its network services for 3G communications that T-Mobile enables pursuant to
11 WCDMA technology. Since at least time of the written communications from
12 SPH in February 2012, T-Mobile has had actual knowledge of the '029 patent and
13 that the use of products and services by its customers constituted direct
14 infringement of the '029 patent. Despite this knowledge, T-Mobile has continued
15 to offer these services, to facilitate and encourage infringing use of its services, and
16 to encourage its customers to use products and services from T-Mobile in a manner
17 that infringes the '029 patent.

18 46. On information and belief, T-Mobile has also infringed the '029
19 patent by contributing to the infringement of others, including users of unlicensed
20 wireless handsets on its networks, to infringe one or more claims of the '029 patent
21 in violation of 35 U.S.C. § 271(c).

22 47. On information and belief, T-Mobile sells devices that are a
23 component of the patented invention of the '029 patent or an apparatus for use in
24 practicing a patented process of the '029 patent and they are especially made or
25 especially adapted for use in infringement of the '029 patent. In particular, the
26 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
27 use in practicing one or more claimed processes of the '029 patent and are
28 especially made or especially adapted for use in practicing one or more claimed

1 processes of the '029 patent, including through use in communications using
2 WCDMA technology. T-Mobile sold these unlicensed devices despite its
3 knowledge that they were especially made or especially adapted for use in
4 infringement of the '029 patent. T-Mobile was put on notice of the infringing
5 nature of these goods since at least the time of the written communications from
6 SPH in February 2012.

7 48. T-Mobile undertook its actions of, *inter alia*, making, using, offering
8 for sale, and/or selling unlicensed systems, and products and/or services related
9 thereto despite an objectively high likelihood that such activities infringed the '029
10 patent, which has been duly issued by the United States Patent and Trademark
11 Office, and is presumed valid. Since at least the time of the written
12 communications from SPH in February 2012, T-Mobile has been aware of an
13 objectively high likelihood that its actions constituted, and continue to constitute,
14 infringement of the '029 patent and that the '029 patent is valid. Despite that
15 knowledge, on information and belief, T-Mobile has continued its infringing
16 activities. As such, T-Mobile willfully infringed the '029 patent.

17 49. As a result of T-Mobile's infringement of the '029 patent, Plaintiff
18 SPH has suffered monetary damages and is entitled to a money judgment in an
19 amount adequate to compensate for T-Mobile's infringement, but in no event less
20 than a reasonable royalty for the use made of the invention by T-Mobile,
21 enhancement of damages due to T-Mobile's willful infringement, and interest and
22 costs as fixed by the Court.

23 COUNT V

24 INFRINGEMENT OF U.S. PATENT NO. 8,121,173

25 50. Plaintiff SPH realleges and incorporates by reference paragraphs 1-49
26 above, as if fully set forth herein.

27 51. Plaintiff SPH is the exclusive licensee of United States Patent No.
28 8,121,173 ("the '173 patent") titled "Apparatus And Method For Modulating Data

1 Message By Employing Orthogonal Variable Spreading Factor (OVSF) Codes In
2 Mobile Communicating System.” The ‘173 patent was duly and legally issued by
3 the United States Patent and Trademark Office on February 21, 2012. SPH is the
4 exclusive licensee, possessing all substantial rights, to the ‘173 patent pursuant to a
5 license from the Electronics and Telecommunications Research Institute, a South
6 Korean non-profit research organization, the owner of the ‘173 patent.

7 52. On information and belief, T-Mobile operates a wireless
8 communications network, and sells mobile handsets for use on a wireless network.
9 On information and belief, T-Mobile also offers wireless communications services
10 and sells mobile handsets for use on a wireless network through its MetroPCS
11 mobile brand.

12 53. On information and belief, T-Mobile has infringed and continues to
13 infringe the ‘173 patent by, among other things, making, using, offering for sale,
14 and/or selling unlicensed systems, and products and/or services related thereto,
15 covered by one or more claims of the ‘173 patent. Such unlicensed products
16 include, by way of example and without limitation, mobile phones made by
17 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
18 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
19 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
20 phones made by Huawei, including without limitation the T-Mobile Prism II, the
21 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
22 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
23 covered by one or more claims of the ‘173 patent, including but not limited to
24 claim 1. By making, using, offering for sale, and/or selling such systems, and
25 products and/or services related thereto, covered by one or more claims of the ‘173
26 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the ‘173
27 patent pursuant to 35 U.S.C. § 271.

1 54. As a result of T-Mobile's infringement of the '173 patent, Plaintiff
2 SPH has suffered monetary damages and is entitled to a money judgment in an
3 amount adequate to compensate for T-Mobile's infringement, but in no event less
4 than a reasonable royalty for the use made of the invention by T-Mobile, and
5 interests and costs as fixed by the Court.

6 55. T-Mobile was placed on notice of its infringement of the '173 Patent
7 no later than the filing of the initial complaint in this matter specifically identifying
8 the '173 Patent and informing T-Mobile of its infringing conduct.

9 56. On information and belief, T-Mobile has also infringed the '173
10 patent by inducing others, including users of unlicensed wireless handsets on its
11 networks to infringe one or more claims of the '173 patent in violation of 35
12 U.S.C. § 271(b).

13 57. On information and belief, T-Mobile takes active steps to induce its
14 customers and network users to infringe the '173 patent by taking affirmative steps
15 to encourage and facilitate direct infringement by others with knowledge of that
16 infringement, such as, upon information and belief, by importing, offering for sale,
17 and/or selling products and/or services that when used as intended infringe the
18 '173 patent. For example, and without limitation, on information and belief, T-
19 Mobile advertises that customers can utilize mobile devices to communicate using
20 its network services for 3G communications that T-Mobile enables pursuant to
21 WCDMA technology. Since at least the filing of the initial complaint in this
22 matter, T-Mobile has had actual knowledge of the '173 patent and that the use of
23 products and services by its customers constituted direct infringement of the '173
24 patent. Despite this knowledge, T-Mobile has continued to offer these services, to
25 facilitate and encourage infringing use of its services, and to encourage its
26 customers to use products and services from T-Mobile in a manner that infringes
27 the '173 patent.

1 58. On information and belief, T-Mobile has also infringed the ‘173
2 patent by contributing to the infringement of others, including users of unlicensed
3 wireless handsets on its networks, to infringe one or more claims of the ‘173 patent
4 in violation of 35 U.S.C. § 271(c).

5 59. On information and belief, T-Mobile sells devices that are a
6 component of the patented invention of the ‘173 patent or an apparatus for use in
7 practicing a patented process of the ‘173 patent and they are especially made or
8 especially adapted for use in infringement of the ‘173 patent. In particular, the
9 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
10 use in practicing one or more claimed processes of the ‘173 patent and are
11 especially made or especially adapted for use in practicing one or more claimed
12 processes of the ‘173 patent, including through use in communications using
13 WCDMA technology. T-Mobile sold these unlicensed devices despite its
14 knowledge that they were especially made or especially adapted for use in
15 infringement of the ‘173 patent. T-Mobile was put on notice of the infringing
16 nature of these goods since at least the time of the filing of the initial complaint in
17 this matter.

18 60. T-Mobile undertook its actions of, *inter alia*, making, using, offering
19 for sale, and/or selling unlicensed systems, and products and/or services related
20 thereto despite an objectively high likelihood that such activities infringed the ‘173
21 patent, which has been duly issued by the United States Patent and Trademark
22 Office, and is presumed valid. Since at least the time of the initial filing of this
23 action, T-Mobile has been aware of an objectively high likelihood that its actions
24 constituted, and continue to constitute, infringement of the ‘173 patent and that the
25 ‘173 patent is valid. Despite that knowledge, on information and belief, T-Mobile
26 has continued its infringing activities. As such, T-Mobile willfully infringed the
27 ‘173 patent.
28

61. As a result of T-Mobile's indirect infringement of the '173 patent, Plaintiff SPH has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for T-Mobile's infringement, but in no event less than a reasonable royalty for the use made of the invention by T-Mobile, enhancement of damages due to T-Mobile's willful infringement, and interest and costs as fixed by the Court.

COUNT VI

INFRINGEMENT OF U.S. PATENT NO. RE 44,507

62. Plaintiff SPH realleges and incorporates by reference paragraphs 1-61 above, as if fully set forth herein.

63. Plaintiff SPH is the exclusive licensee of United States Patent No. RE 44,507 (“the ‘507 patent”) titled “Orthogonal Complex Spreading Method for Multichannel and Apparatus Thereof.” The ‘507 patent was duly and legally issued by the United States Patent and Trademark Office on September 24, 2013. SPH is the exclusive licensee, possessing all substantial rights, to the ‘507 patent pursuant to a license from the Electronics and Telecommunications Research Institute, a South Korean non-profit research organization, the owner of the ‘507 patent.

64. On information and belief, T-Mobile operates a wireless communications network, and sells mobile handsets for use on a wireless network. On information and belief, T-Mobile also offers wireless communications services and sells mobile handsets for use on a wireless network through its MetroPCS mobile brand.

65. On information and belief, T-Mobile has infringed and continues to infringe the '507 patent by, among other things, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related thereto, covered by one or more claims of the '507 patent. Such unlicensed products include, by way of example and without limitation, mobile phones made by

1 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
2 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
3 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
4 phones made by Huawei, including without limitation the T-Mobile Prism II, the
5 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
6 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
7 covered by one or more claims of the '507 patent, including but not limited to
8 claim 104. By making, using, offering for sale, and/or selling such systems, and
9 products and/or services related thereto, covered by one or more claims of the '507
10 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the '507
11 patent pursuant to 35 U.S.C. § 271.

12 66. As a result of T-Mobile's infringement of the '507 patent, Plaintiff
13 SPH has suffered monetary damages and is entitled to a money judgment in an
14 amount adequate to compensate for T-Mobile's infringement, but in no event less
15 than a reasonable royalty for the use made of the invention by T-Mobile, and
16 interests and costs as fixed by the Court.

17 67. Sprint was placed on notice of its infringement of the '507 Patent no
18 later than the filing of the first amended complaint in this matter specifically
19 identifying the '507 Patent and informing Sprint of its infringing conduct.

20 68. On information and belief, Sprint has also infringed the '507 patent by
21 inducing others, including users of unlicensed wireless handsets on its networks to
22 infringe one or more claims of the '507 patent in violation of 35 U.S.C. § 271(b).

23 69. On information and belief, Sprint takes active steps to induce its
24 customers and network users to infringe the '507 patent by taking affirmative steps
25 to encourage and facilitate direct infringement by others with knowledge of that
26 infringement, such as, upon information and belief, by importing, offering for sale,
27 and/or selling products and/or services that when used as intended infringe the
28 '507 patent. For example, and without limitation, on information and belief, Sprint

1 advertises that customers can utilize mobile devices to communicate using its
2 network services for 3G communications that Sprint enables pursuant to WCDMA
3 technology. Since at least the filing of the first amended complaint in this matter,
4 Sprint has had actual knowledge of the ‘507 patent and that the use of products and
5 services by its customers constituted direct infringement of the ‘507 patent.
6 Despite this knowledge, Sprint has continued to offer these services, to facilitate
7 and encourage infringing use of its services, and to encourage its customers to use
8 products and services from Sprint in a manner that infringes the ‘507 patent.

9 70. On information and belief, Sprint has also infringed the ‘507 patent by
10 contributing to the infringement of others, including users of unlicensed wireless
11 handsets on its networks, to infringe one or more claims of the ‘507 patent in
12 violation of 35 U.S.C. § 271(c).

13 71. On information and belief, Sprint sells devices that are a component
14 of the patented invention of the ‘507 patent or an apparatus for use in practicing a
15 patented process of the ‘507 patent and they are especially made or especially
16 adapted for use in infringement of the ‘507 patent. In particular, the unlicensed
17 mobile handsets sold and offered for sale by Sprint are apparatus for use in
18 practicing one or more claimed processes of the ‘507 patent and are especially
19 made or especially adapted for use in practicing one or more claimed processes of
20 the ‘507 patent, including through use in communications using WCDMA
21 technology. Sprint sold these unlicensed devices despite its knowledge that they
22 were especially made or especially adapted for use in infringement of the ‘507
23 patent. Sprint was put on notice of the infringing nature of these goods since at
24 least the time of the filing of the initial complaint in this matter.

25 72. Sprint undertook its actions of, *inter alia*, making, using, offering for
26 sale, and/or selling unlicensed systems, and products and/or services related thereto
27 despite an objectively high likelihood that such activities infringed the ‘507 patent,
28 which has been duly issued by the United States Patent and Trademark Office, and

1 is presumed valid. Since at least the time of the filing of the first amended
 2 complaint in this action, Sprint has been aware of an objectively high likelihood
 3 that its actions constituted, and continue to constitute, infringement of the ‘507
 4 patent and that the ‘507 patent is valid. Despite that knowledge, on information
 5 and belief, Sprint has continued its infringing activities. As such, Sprint willfully
 6 infringed the ‘507 patent.

7 73. As a result of Sprint’s indirect infringement of the ‘507 patent,
 8 Plaintiff SPH has suffered monetary damages and is entitled to a money judgment
 9 in an amount adequate to compensate for Sprint’s infringement, but in no event
 10 less than a reasonable royalty for the use made of the invention by Sprint,
 11 enhancement of damages due to Sprint’s willful infringement, and interest and
 12 costs as fixed by the Court.

13 **COUNT VII**

14 **INFRINGEMENT OF U.S. PATENT NO. RE 44,530**

15 74. Plaintiff SPH realleges and incorporates by reference paragraphs 1-73
 16 above, as if fully set forth herein.

17 75. Plaintiff SPH is the exclusive licensee of United States Patent No. RE
 18 44,530 (“the ‘530 patent”) titled “Apparatus for Making a Random Access to the
 19 Reverse Common Channel of a Base Station in CDMA and Method Therefor.”
 20 The ‘530 patent was duly and legally issued by the United States Patent and
 21 Trademark Office on October 8, 2013. SPH is the exclusive licensee, possessing
 22 all substantial rights, to the ‘530 patent pursuant to a license from the Electronics
 23 and Telecommunications Research Institute, a South Korean non-profit research
 24 organization, the owner of the ‘530 patent.

25 76. On information and belief, T-Mobile operates a wireless
 26 communications network, and sells mobile handsets for use on a wireless network.
 27 On information and belief, T-Mobile also offers wireless communications services
 28

1 and sells mobile handsets for use on a wireless network through its MetroPCS
2 mobile brand.

3 77. On information and belief, T-Mobile has infringed and continues to
4 infringe the '530 patent by, among other things, making, using, offering for sale,
5 and/or selling unlicensed systems, and products and/or services related thereto,
6 covered by one or more claims of the '530 patent. Such unlicensed products
7 include, by way of example and without limitation, mobile phones made by
8 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
9 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
10 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
11 phones made by Huawei, including without limitation the T-Mobile Prism II, the
12 Premia 4G, and the Pinnacle 2, and mobile phones made by ZTE, including
13 without limitation the ZTE Avid 4G and the ZTE Anthem 4G, all of which are
14 covered by one or more claims of the '507 patent, including but not limited to
15 claim 222. By making, using, offering for sale, and/or selling such systems, and
16 products and/or services related thereto, covered by one or more claims of the '530
17 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the '530
18 patent pursuant to 35 U.S.C. § 271.

19 78. As a result of T-Mobile's infringement of the '530 patent, Plaintiff
20 SPH has suffered monetary damages and is entitled to a money judgment in an
21 amount adequate to compensate for T-Mobile's infringement, but in no event less
22 than a reasonable royalty for the use made of the invention by T-Mobile, and
23 interests and costs as fixed by the Court.

24 79. T-Mobile was placed on notice of its infringement of the '530 Patent
25 no later than the filing of the first amended complaint in this matter specifically
26 identifying the '530 Patent and informing T-Mobile of its infringing conduct.

27 80. On information and belief, T-Mobile has also infringed the '530
28 patent by inducing others, including users of unlicensed wireless handsets on its

1 networks to infringe one or more claims of the ‘530 patent in violation of 35
2 U.S.C. § 271(b).

3 81. On information and belief, T-Mobile takes active steps to induce its
4 customers and network users to infringe the ‘530 patent by taking affirmative steps
5 to encourage and facilitate direct infringement by others with knowledge of that
6 infringement, such as, upon information and belief, by importing, offering for sale,
7 and/or selling products and/or services that when used as intended infringe the
8 ‘530 patent. For example, and without limitation, on information and belief, T-
9 Mobile advertises that customers can utilize mobile devices to communicate using
10 its network services for 3G communications that T-Mobile enables pursuant to
11 WCDMA technology. Since at least the filing of the first amended complaint in
12 this matter, T-Mobile has had actual knowledge of the ‘530 patent and that the use
13 of products and services by its customers constituted direct infringement of the
14 ‘530 patent. Despite this knowledge, T-Mobile has continued to offer these
15 services, to facilitate and encourage infringing use of its services, and to encourage
16 its customers to use products and services from T-Mobile in a manner that
17 infringes the ‘530 patent.

18 82. On information and belief, T-Mobile has also infringed the ‘530
19 patent by contributing to the infringement of others, including users of unlicensed
20 wireless handsets on its networks, to infringe one or more claims of the ‘530 patent
21 in violation of 35 U.S.C. § 271(c).

22 83. On information and belief, T-Mobile sells devices that are a
23 component of the patented invention of the ‘530 patent or an apparatus for use in
24 practicing a patented process of the ‘530 patent and they are especially made or
25 especially adapted for use in infringement of the ‘530 patent. In particular, the
26 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
27 use in practicing one or more claimed processes of the ‘530 patent and are
28 especially made or especially adapted for use in practicing one or more claimed

1 processes of the ‘530 patent, including through use in communications using
2 WCDMA technology. T-Mobile sold these unlicensed devices despite its
3 knowledge that they were especially made or especially adapted for use in
4 infringement of the ‘530 patent. T-Mobile was put on notice of the infringing
5 nature of these goods since at least the time of the filing of the initial complaint in
6 this matter.

7 84. T-Mobile undertook its actions of, *inter alia*, making, using, offering
8 for sale, and/or selling unlicensed systems, and products and/or services related
9 thereto despite an objectively high likelihood that such activities infringed the ‘530
10 patent, which has been duly issued by the United States Patent and Trademark
11 Office, and is presumed valid. Since at least the time of the filing of the first
12 amended complaint in this action, T-Mobile has been aware of an objectively high
13 likelihood that its actions constituted, and continue to constitute, infringement of
14 the ‘530 patent and that the ‘530 patent is valid. Despite that knowledge, on
15 information and belief, T-Mobile has continued its infringing activities. As such,
16 T-Mobile willfully infringed the ‘530 patent.

17 85. As a result of T-Mobile’s indirect infringement of the ‘530 patent,
18 Plaintiff SPH has suffered monetary damages and is entitled to a money judgment
19 in an amount adequate to compensate for T-Mobile’s infringement, but in no event
20 less than a reasonable royalty for the use made of the invention by T-Mobile,
21 enhancement of damages due to T-Mobile’s willful infringement, and interest and
22 costs as fixed by the Court.

23 **COUNT VIII**

24 **INFRINGEMENT OF U.S. PATENT NO. RE 44,591**

25 86. Plaintiff SPH realleges and incorporates by reference paragraphs 1-85
26 above, as if fully set forth herein.

27 87. Plaintiff SPH is the exclusive licensee of United States Patent No. RE
28 44,591 (“the ‘591 patent”) titled “Apparatus for Making a Random Access to the

Reverse Common Channel of a Base Station in CDMA and Method Therefor.”
The ‘591 patent was duly and legally issued by the United States Patent and Trademark Office on November 12, 2013. SPH is the exclusive licensee, possessing all substantial rights, to the ‘530 patent pursuant to a license from the Electronics and Telecommunications Research Institute, a South Korean non-profit research organization, the owner of the ‘591 patent.

88. On information and belief, T-Mobile operates a wireless communications network utilizing wireless communications base stations.

89. On information and belief, T-Mobile has infringed and continues to infringe the ‘591 patent by, among other things, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related thereto, covered by one or more claims of the ‘591 patent. Such unlicensed products include, by way of example and without limitation, T-Mobile’s use of wireless communication base stations which are covered by one or more claims of the ‘591 patent, including but not limited to claim 55. By making, using, offering for sale, and/or selling such systems, and products and/or services related thereto, covered by one or more claims of the ‘591 patent, T-Mobile has injured SPH and is liable to SPH for infringement of the ‘591 patent pursuant to 35 U.S.C. § 271.

90. As a result of T-Mobile’s infringement of the ‘591 patent, Plaintiff SPH has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for T-Mobile’s infringement, but in no event less than a reasonable royalty for the use made of the invention by T-Mobile, and interests and costs as fixed by the Court.

91. T-Mobile was placed on notice of its infringement of the ‘591 Patent no later than the filing of the first amended complaint in this matter specifically identifying the ‘591 Patent and informing T-Mobile of its infringing conduct.

92. T-Mobile undertook its actions of, *inter alia*, making, using, offering for sale, and/or selling unlicensed systems, and products and/or services related

1 thereto despite an objectively high likelihood that such activities infringed the ‘591
2 patent, which has been duly issued by the United States Patent and Trademark
3 Office, and is presumed valid. Since at least the time of the filing of the first
4 amended complaint in this action, T-Mobile has been aware of an objectively high
5 likelihood that its actions constituted, and continue to constitute, infringement of
6 the ‘591 patent and that the ‘591 patent is valid. Despite that knowledge, on
7 information and belief, T-Mobile has continued its infringing activities. As such,
8 T-Mobile willfully infringed the ‘591 patent.

9 93. As a result of T-Mobile’s infringement of the ‘591 patent, Plaintiff
10 SPH has suffered monetary damages and is entitled to a money judgment in an
11 amount adequate to compensate for T-Mobile’s infringement, but in no event less
12 than a reasonable royalty for the use made of the invention by T-Mobile,
13 enhancement of damages due to T-Mobile’s willful infringement, and interest and
14 costs as fixed by the Court.

15 **COUNT IX**

16 **INFRINGEMENT OF U.S. PATENT NO. 8,565,346**

17 94. Plaintiff SPH realleges and incorporates by reference paragraphs 1-93
18 above, as if fully set forth herein.

19 95. Plaintiff SPH is the exclusive licensee of United States Patent No.
20 8,565,346 (“the ‘346 patent”) titled “Apparatus for Transmitting and Receiving
21 Data to Provide High-Speed Data Communication and Method Thereof.” The
22 ‘346 patent was duly and legally issued by the United States Patent and Trademark
23 Office on October 22, 2013. SPH is the exclusive licensee, possessing all
24 substantial rights, to the ‘346 patent pursuant to a license from the Electronics and
25 Telecommunications Research Institute, a South Korean non-profit research
26 organization, the owner of the ‘346 patent.

27 96. On information and belief, T-Mobile sells mobile handsets capable of
28 wireless local area network connectivity.

1 97. On information and belief, T-Mobile has infringed and continues to
2 infringe the '346 patent by, among other things, making, using, offering for sale,
3 and/or selling unlicensed systems, and products and/or services related thereto,
4 covered by one or more claims of the '346 patent. Such unlicensed products
5 include, by way of example and without limitation, mobile phones made by
6 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
7 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
8 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
9 phones made by Huawei, including without limitation the T-Mobile Prism II and
10 the Premia 4G, and mobile phones made by ZTE, including without limitation the
11 ZTE Avid 4G and the ZTE Anthem 4G, all of which are covered by one or more
12 claims of the '346 patent, including but not limited to claim 1. By making, using,
13 offering for sale, and/or selling such systems, and products and/or services related
14 thereto, covered by one or more claims of the '346 patent, T-Mobile has injured
15 SPH and is liable to SPH for infringement of the '346 patent pursuant to 35 U.S.C.
16 § 271.

17 98. As a result of T-Mobile's infringement of the '346 patent, Plaintiff
18 SPH has suffered monetary damages and is entitled to a money judgment in an
19 amount adequate to compensate for T-Mobile's infringement, but in no event less
20 than a reasonable royalty for the use made of the invention by T-Mobile, and
21 interests and costs as fixed by the Court.

22 99. T-Mobile was placed on notice of its infringement of the '346 Patent
23 no later than the filing of the first amended complaint in this matter specifically
24 identifying the '346 Patent and informing T-Mobile of its infringing conduct.

25 100. On information and belief, T-Mobile has also infringed the '346
26 patent by inducing others, including users of unlicensed wireless handsets to
27 infringe one or more claims of the '346 patent in violation of 35 U.S.C. § 271(b).
28

1 101. On information and belief, T-Mobile takes active steps to induce its
2 customers to infringe the '346 patent by taking affirmative steps to encourage and
3 facilitate direct infringement by others with knowledge of that infringement, such
4 as, upon information and belief, by importing, offering for sale, and/or selling
5 products and/or services that when used as intended infringe the '346 patent. For
6 example, and without limitation, on information and belief, T-Mobile advertises
7 that customers can utilize mobile devices to communicate using WiFi
8 communications protocols. Since at least the filing of the first amended complaint
9 in this matter, T-Mobile has had actual knowledge of the '346 patent and that the
10 use of products and services by its customers constituted direct infringement of the
11 '346 patent. Despite this knowledge, T-Mobile has continued to offer these
12 services, to facilitate and encourage infringing use of its services, and to encourage
13 its customers to use products and services from T-Mobile in a manner that
14 infringes the '346 patent.

15 102. On information and belief, T-Mobile has also infringed the '346
16 patent by contributing to the infringement of others, including users of unlicensed
17 wireless handsets, to infringe one or more claims of the '346 patent in violation of
18 35 U.S.C. § 271(c).

19 103. On information and belief, T-Mobile sells devices that are a
20 component of the patented invention of the '346 patent or an apparatus for use in
21 practicing a patented process of the '346 patent and they are especially made or
22 especially adapted for use in infringement of the '346 patent. In particular, the
23 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
24 use in practicing one or more claimed processes of the '346 patent and are
25 especially made or especially adapted for use in practicing one or more claimed
26 processes of the '346 patent, including through use in communications using WiFi
27 communications protocols. T-Mobile sold these unlicensed devices despite its
28 knowledge that they were especially made or especially adapted for use in

1 infringement of the ‘346 patent. T-Mobile was put on notice of the infringing
2 nature of these goods since at least the time of the filing of the initial complaint in
3 this matter.

4 104. T-Mobile undertook its actions of, *inter alia*, making, using, offering
5 for sale, and/or selling unlicensed systems, and products and/or services related
6 thereto despite an objectively high likelihood that such activities infringed the ‘346
7 patent, which has been duly issued by the United States Patent and Trademark
8 Office, and is presumed valid. Since at least the time of the filing of the first
9 amended complaint in this action, T-Mobile has been aware of an objectively high
10 likelihood that its actions constituted, and continue to constitute, infringement of
11 the ‘346 patent and that the ‘346 patent is valid. Despite that knowledge, on
12 information and belief, T-Mobile has continued its infringing activities. As such,
13 T-Mobile willfully infringed the ‘346 patent.

14 105. As a result of T-Mobile’s indirect infringement of the ‘346 patent,
15 Plaintiff SPH has suffered monetary damages and is entitled to a money judgment
16 in an amount adequate to compensate for T-Mobile’s infringement, but in no event
17 less than a reasonable royalty for the use made of the invention by T-Mobile,
18 enhancement of damages due to T-Mobile’s willful infringement, and interest and
19 costs as fixed by the Court.

20 COUNT X

21 INFRINGEMENT OF U.S. PATENT NO. 8,532,231

22 106. Plaintiff SPH realleges and incorporates by reference paragraphs 1-
23 105 above, as if fully set forth herein.

24 107. Plaintiff SPH is the exclusive licensee of United States Patent No.
25 8,532,231 (“the ‘231 patent”) titled “Apparatus for Transmitting and Receiving
26 Data to Provide High-Speed Data Communication and Method Thereof.” The
27 ‘231 patent was duly and legally issued by the United States Patent and Trademark
28 Office on September 10, 2013. SPH is the exclusive licensee, possessing all

1 substantial rights, to the '231 patent pursuant to a license from the Electronics and
2 Telecommunications Research Institute, a South Korean non-profit research
3 organization, the owner of the '231 patent.

4 108. On information and belief, T-Mobile sells mobile handsets capable of
5 wireless local area network connectivity.

6 109. On information and belief, T-Mobile has infringed and continues to
7 infringe the '231 patent by, among other things, making, using, offering for sale,
8 and/or selling unlicensed systems, and products and/or services related thereto,
9 covered by one or more claims of the '231 patent. Such unlicensed products
10 include, by way of example and without limitation, mobile phones made by
11 Samsung, including without limitation the Samsung Galaxy S4, Galaxy S III, and
12 the Galaxy S II, mobile phones made by Blackberry, including, without limitation
13 the Blackberry Q10, the Blackberry Z10, and the Blackberry Curve 9315, mobile
14 phones made by Huawei, including without limitation the T-Mobile Prism II and
15 the Premia 4G, and mobile phones made by ZTE, including without limitation the
16 ZTE Avid 4G and the ZTE Anthem 4G, all of which are covered by one or more
17 claims of the '231 patent, including but not limited to claim 35. By making, using,
18 offering for sale, and/or selling such systems, and products and/or services related
19 thereto, covered by one or more claims of the '231 patent, T-Mobile has injured
20 SPH and is liable to SPH for infringement of the '231 patent pursuant to 35 U.S.C.
21 § 271.

22 110. As a result of T-Mobile's infringement of the '231 patent, Plaintiff
23 SPH has suffered monetary damages and is entitled to a money judgment in an
24 amount adequate to compensate for T-Mobile's infringement, but in no event less
25 than a reasonable royalty for the use made of the invention by T-Mobile, and
26 interests and costs as fixed by the Court.

111. T-Mobile was placed on notice of its infringement of the ‘231 Patent no later than the filing of the first amended complaint in this matter specifically identifying the ‘231 Patent and informing T-Mobile of its infringing conduct.

112. On information and belief, T-Mobile has also infringed the ‘231 patent by inducing others, including users of unlicensed wireless handsets to infringe one or more claims of the ‘231 patent in violation of 35 U.S.C. § 271(b).

113. On information and belief, T-Mobile takes active steps to induce its customers to infringe the ‘231 patent by taking affirmative steps to encourage and facilitate direct infringement by others with knowledge of that infringement, such as, upon information and belief, by importing, offering for sale, and/or selling products and/or services that when used as intended infringe the ‘231 patent. For example, and without limitation, on information and belief, T-Mobile advertises that customers can utilize mobile devices to communicate using WiFi communications protocols. Since at least the filing of the first amended complaint in this matter, T-Mobile has had actual knowledge of the ‘231 patent and that the use of products and services by its customers constituted direct infringement of the ‘231 patent. Despite this knowledge, T-Mobile has continued to offer these services, to facilitate and encourage infringing use of its services, and to encourage its customers to use products and services from T-Mobile in a manner that infringes the ‘231 patent.

114. On information and belief, T-Mobile has also infringed the ‘231 patent by contributing to the infringement of others, including users of unlicensed wireless handsets, to infringe one or more claims of the ‘231 patent in violation of 35 U.S.C. § 271(c).

115. On information and belief, T-Mobile sells devices that are a component of the patented invention of the ‘231 patent or an apparatus for use in practicing a patented process of the ‘231 patent and they are especially made or especially adapted for use in infringement of the ‘231 patent. In particular, the

1 unlicensed mobile handsets sold and offered for sale by T-Mobile are apparatus for
2 use in practicing one or more claimed processes of the ‘231 patent and are
3 especially made or especially adapted for use in practicing one or more claimed
4 processes of the ‘231 patent, including through use in communications using WiFi
5 communications protocols. T-Mobile sold these unlicensed devices despite its
6 knowledge that they were especially made or especially adapted for use in
7 infringement of the ‘231 patent. T-Mobile was put on notice of the infringing
8 nature of these goods since at least the time of the filing of the initial complaint in
9 this matter.

10 116. T-Mobile undertook its actions of, *inter alia*, making, using, offering
11 for sale, and/or selling unlicensed systems, and products and/or services related
12 thereto despite an objectively high likelihood that such activities infringed the ‘231
13 patent, which has been duly issued by the United States Patent and Trademark
14 Office, and is presumed valid. Since at least the time of the filing of the first
15 amended complaint in this action, T-Mobile has been aware of an objectively high
16 likelihood that its actions constituted, and continue to constitute, infringement of
17 the ‘231 patent and that the ‘231 patent is valid. Despite that knowledge, on
18 information and belief, T-Mobile has continued its infringing activities. As such,
19 T-Mobile willfully infringed the ‘231 patent.

20 117. As a result of T-Mobile’s indirect infringement of the ‘231 patent,
21 Plaintiff SPH has suffered monetary damages and is entitled to a money judgment
22 in an amount adequate to compensate for T-Mobile’s infringement, but in no event
23 less than a reasonable royalty for the use made of the invention by T-Mobile,
24 enhancement of damages due to T-Mobile’s willful infringement, and interest and
25 costs as fixed by the Court.

26 **III. PRAYER FOR RELIEF**

27 WHEREFORE, Plaintiff SPH respectfully requests that this Court enter:
28

1 1. A judgment in favor of Plaintiff SPH that T-Mobile has infringed,
2 either literally and/or under the doctrine of equivalents, the ‘385 patent, the ‘253
3 patent, the ‘906 patent, the ‘029 patent, the ‘173 patent, the ‘507 patent, the ‘530
4 patent, the ‘591 patent, the ‘346 patent, and the ‘231 patent;

5 2. A judgment in favor of Plaintiff SPH that T-Mobile has induced
6 infringement of the ‘385 patent, the ‘253 patent, the ‘906 patent, the ‘029 patent,
7 the ‘173 patent, the ‘507 patent, the ‘530 patent, the ‘346 patent, and the ‘231
8 patent;

9 3. A judgment in favor of Plaintiff SPH that T-Mobile has contributed to
10 the infringement of the ‘385 patent, the ‘253 patent, the ‘906 patent, the ‘029
11 patent, the ‘173 patent, the ‘507 patent, the ‘530 patent, the ‘346 patent, and the
12 ‘231 patent;

13 4. A judgment in favor of Plaintiff SPH that T-Mobile has willfully
14 infringed the ‘385 patent, the ‘253 patent, the ‘906 patent, the ‘029 patent, the ‘173
15 patent, the ‘507 patent, the ‘530 patent, the ‘346 patent, and the ‘231 patent;

16 5. A judgment and order requiring T-Mobile to pay Plaintiff SPH its
17 damages, costs, expenses, and pre-judgment and post-judgment interest as
18 provided under 35 U.S.C. § 284 for T-Mobile’s infringement of the ‘385 patent,
19 the ‘253 patent, the ‘906 patent, the ‘029 patent, the ‘173 patent, the ‘507 patent,
20 the ‘530 patent, the ‘591 patent, the ‘346 patent, and the ‘231 patent;

21 6. A judgment and order for treble damages pursuant to 35 U.S.C. § 284;

22 7. A judgment and order that this case is exceptional and requiring T-
23 Mobile to pay Plaintiff SPH reasonable experts’ fees and attorneys’ fees pursuant
24 to 35 U.S.C. § 285; and

25 8. Any and all other relief as the Court may deem appropriate and just
26 under the circumstances.

27 **IV. DEMAND FOR JURY TRIAL**

28 Plaintiff SPH requests a trial by jury of any issues so triable.

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