

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CELLULAR COMMUNICATIONS
EQUIPMENT LLC,

Plaintiff,

v.

ZTE CORPORATION, ZTE (USA) INC.,
ZTE SOLUTIONS, INC.,
AT&T INC., AT&T MOBILITY LLC,
SPRINT CORPORATION,
SPRINT SOLUTIONS, INC.,
SPRINT SPECTRUM L.P.,
BOOST MOBILE, LLC,
T-MOBILE USA, INC., and
T-MOBILE US, INC.,

Defendants.

CIVIL ACTION NO. 6:16-cv-476

JURY TRIAL DEMANDED

**PLAINTIFF'S FIRST AMENDED ORIGINAL COMPLAINT
FOR PATENT INFRINGEMENT**

Plaintiff Cellular Communications Equipment LLC files this First Amended Original Complaint against ZTE Corporation; ZTE (USA) Inc.; ZTE Solutions, Inc.; AT&T Inc.; AT&T Mobility LLC; Sprint Corporation; Sprint Solutions, Inc.; Sprint Spectrum L.P.; Boost Mobile, LLC; T-Mobile USA, Inc.; and T-Mobile US, Inc. (collectively, the "Defendants") for infringement of U.S. Patent No. 8,055,820 ("the '820 patent"), U.S. Patent No. 8,385,966 ("the '966 patent"), U.S. Patent No. 9,037,129 ("the '129 patent"), and U.S. Patent No. 7,941,174 ("the '174 patent").

THE PARTIES

1. Cellular Communications Equipment LLC ("CCE") is a Texas limited liability company with its principal place of business in Plano, Texas.

2. ZTE Corporation is a corporation organized and existing under the laws of the People's Republic of China with its principal place of business in ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong Province, P.R. China 518057. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process at its principal place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong Province, P.R. China 518057.

3. ZTE (USA) Inc. is a New Jersey corporation with its principal place of business in Richardson, Texas. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Jing Li, 2425 N. Central Expressway, Suite 323, Richardson, Texas 75090-2791.

4. ZTE Solutions Inc. (with ZTE Corp. and ZTE (USA) Inc., "ZTE") is a Delaware corporation with its principal place of business in Richardson, Texas. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808.

5. AT&T Inc. is a Delaware corporation with its principal place of business in Dallas, Texas. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

6. AT&T Mobility LLC (with AT&T Inc., "AT&T") is a Delaware limited liability company with its principal place of business in Atlanta, Georgia. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with

process through its agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

7. Sprint Corporation is a Delaware corporation with its principal place of business in Overland Park, Kansas. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808.

8. Sprint Solutions, Inc. is a Delaware corporation with its principal place of business in Reston, Virginia. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

9. Sprint Spectrum L.P. is a Delaware limited partnership with its principal place of business in Overland Park, Kansas. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

10. Boost Mobile, LLC (with Sprint Corporation, Sprint Solutions, Inc., and Sprint Spectrum L.P., "Sprint") is a Delaware limited liability company with its principal place of business in Irvine, California. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

11. T-Mobile USA, Inc. is a Delaware corporation with a principal place of business in Bellevue, Washington. T-Mobile USA, Inc. maintains a significant presence in Richardson, Texas and offers products and services under the T-Mobile and MetroPCS brands. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 211 E.

7th Street, Suite 620, Austin, TX 78701-3218. This Defendant does business in the State of Texas and in the Eastern District of Texas.

12. T-Mobile US, Inc. (with T-Mobile USA, Inc., “T-Mobile”) is a Delaware corporation with its principal place of business in Bellevue, Washington. T-Mobile US, Inc. maintains a significant presence in Richardson, Texas, and offers products and services under the T-Mobile and MetroPCS brands. This Defendant does business in the State of Texas and in the Eastern District of Texas. This Defendant may be served with process through its agent, Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808.

JURISDICTION AND VENUE

13. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.

14. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a), and 1367.

15. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c), and 1400(b). On information and belief, each Defendant is deemed to reside in this judicial district, has committed acts of infringement in this judicial district, has purposely transacted business in this judicial district, and/or has regular and established places of business in this judicial district.

16. On information and belief, each Defendant is subject to this Court’s specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to their substantial business in this State and judicial district, including: (A) at least part of their infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to Texas residents.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 8,055,820)

17. CCE incorporates paragraphs 1 through 16 herein by reference.

18. CCE is the assignee of the '820 patent, entitled "Apparatus, System, and Method for Designating a Buffer Status Reporting Format Based on Detected Pre-Selected Buffer Conditions," with ownership of all substantial rights in the '820 patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringements. A true and correct copy of the '820 patent is attached as Exhibit A.

19. The '820 patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

20. Defendants ZTE, AT&T, Sprint, and T-Mobile have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '820 patent in this judicial district and elsewhere in Texas and the United States, including at least claims 1, 4, 6, 9, 10, 12, 17, 21, and 24, by, among other things, making, using, offering for sale, selling and/or importing ZTE mobile devices, including, for example: the ZTE Imperial, ZTE Source, ZTE Supreme, ZTE Grand S Pro, ZTE Nubia 5S Mini LTE, ZTE Warp Sync, ZTE 4G LTE Router with Voice, ZTE Unite, ZTE Unite II, ZTE Unite III, ZTE Axon, ZTE Imperial II, and ZTE Rapido LTE, sold or otherwise distributed by or through ZTE; the ZTE AT&T Home Base, ZTE Compel, ZTE ZMAX 2, ZTE Mobley, ZTE Maven, and ZTE AT&T Velocity, sold or otherwise distributed by or through AT&T and/or ZTE (the "'820 AT&T Mobile Devices"); the ZTE Boost Max, ZTE Warp 4G, ZTE Vital, ZTE Sprint LivePro, ZTE Warp Elite, ZTE Max + (a.k.a. ZTE Max Plus), ZTE Speed (a.k.a. ZTE N9130), and ZTE Prestige, sold or otherwise distributed by or through Sprint and/or ZTE (the "'820 Sprint Mobile Devices"), and the ZTE Zmax, ZTE Obsidian, ZTE Grand X Max Plus, ZTE Source (a.k.a. ZTE

N9511), ZTE Avid Plus, and ZTE T-Mobile 4G LTE Hotspot Z915, sold or otherwise distributed by or through T-Mobile and/or ZTE (the “’820 T-Mobile Mobile Devices”). These devices are collectively referred to as the “’820 ZTE Devices.”

21. Defendants directly infringe the apparatus claims of the ’820 patent by making, offering to sell, selling, and/or importing the ’820 ZTE Devices. Defendants also directly infringe the ’820 patent by making, using, selling, offering to sell, and/or importing the ’820 ZTE Devices to practice the claimed methods. Defendants are thereby liable for direct infringement.

22. Specifically, each of the ’820 ZTE Devices monitors the usage of a plurality of buffers, detects certain pre-selected conditions (e.g., detecting whether there is data in buffers for one, or more than one, radio bearer group), designates buffer status reporting formats, and communicates buffer status reports as claimed in claims 1, 4, 6, 9, 10, 12, 17, 21, and 24 of the ’820 patent. *See, e.g.*, buffer status reporting implementations in 3GPP TS 36.321.

23. Additionally, Defendants are liable for indirect infringement of the ’820 patent because they induce and/or contribute to the direct infringement of the patent by their customers and other end users who use the ’820 ZTE Devices to practice the claimed methods.

24. At a minimum, Defendants have known of the ’820 patent as of service of the original complaint in Civil Action No. 6:13-cv-511 filed in this District on June 25, 2013. Each Defendant is, however, a 3rd Generation Partnership Project (or “3GPP”) member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, Defendants received actual notice of the declared essential patents at issue here. The ’820 patent is one such patent, and Defendants have known of the patent application that issued as the ’820 patent at least as early as June 2009, when it was

disclosed to 3GPP via the European Telecommunications Standards Institute (“ETSI,” an organizational member of 3GPP).

25. Despite having knowledge of the ’820 patent, Defendants named in this Count have and continue to specifically intend for persons who acquire and use such devices, including Defendants’ customers, to use such devices in a manner that infringes the ’820 patent, including at least claims 1, 4, 6, 9, and 10. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the ’820 ZTE Devices.

26. In particular, despite having knowledge of the ’820 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, and similar online resources (available via http://www.zteusa.com/support_page, for instance) that specifically teach the customers and other end users to use the ’820 ZTE Devices in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

27. Additionally, Defendants named in this Count know, and have known, that the ’820 ZTE Devices include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the ’820 patent and are not staple articles of commerce suitable for substantial non-infringing use.

28. Specifically, each of the ’820 ZTE Devices contains at least a baseband processor and associated transceiver which contain functionality that is specifically programmed and/or configured to monitor the usage of a plurality of buffers, detect certain pre-selected conditions (e.g., detecting whether there is data in buffers for one, or more than one, radio bearer group),

designate buffer status reporting formats, and communicate buffer status reports as claimed in claims 1, 4, 6, 9, 10, 12, 17, 21, and 24 of the '820 patent.

29. ZTE and AT&T test, make, use, offer for sale, sell, and/or import the '820 AT&T Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

30. ZTE and Sprint test, make, use, offer for sale, sell, and/or import the '820 Sprint Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

31. ZTE and T-Mobile test, make, use, offer for sale, sell, and/or import the '820 T-Mobile Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

32. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates it for their infringements, 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 II

(INFRINGEMENT OF U.S. PATENT NO. 8,385,966)

33. CCE incorporates paragraphs 1 through 16 herein by reference.

34. CCE is the assignee of the '966 patent, entitled "Method, Apparatus, and Computer Program for Power Control Related to Random Access Procedures" with ownership of

all substantial rights in the '966 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '966 patent is attached as Exhibit B.

35. The '966 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

36. Defendants ZTE, AT&T, Sprint, and T-Mobile have and continue to directly infringe one or more claims of the '966 patent in this judicial district and elsewhere in Texas and the United States, including at least claims 1-7, 9, and 10-16, by, among other things, making, using, offering for sale, selling and/or importing ZTE mobile devices, including, for example: the ZTE Imperial, ZTE Source, ZTE Supreme, ZTE Grand S Pro, ZTE Nubia 5S Mini LTE, ZTE 4G LTE Router with Voice (a.k.a. ZTE MF275U), ZTE Unite III, ZTE Axon, ZTE Imperial II, and ZTE Rapido LTE, sold or otherwise distributed by or through ZTE; the ZTE Z998, ZTE AT&T Home Base, ZTE Compel, ZTE ZMAX 2, ZTE Mobley, ZTE Maven, and ZTE AT&T Velocity, sold or otherwise distributed by or through AT&T and/or ZTE (the "'966 AT&T Mobile Devices"); the ZTE Force, ZTE Boost Max, ZTE Warp 4G, ZTE Vital, ZTE Sprint LivePro, ZTE Warp Elite, ZTE Max + (a.k.a. ZTE Max Plus), ZTE Speed (a.k.a. ZTE N9130), and ZTE Prestige, sold or otherwise distributed by or through Sprint and/or ZTE (the "'966 Sprint Mobile Devices"); and the ZTE Zmax, ZTE T-Mobile Sonic 2.0 Mobile Hotspot, ZTE Obsidian, ZTE Grand X Max Plus, ZTE Source (a.k.a. ZTE N9511), ZTE Avid Plus, and ZTE T-Mobile 4G LTE Hotspot Z915, sold or otherwise distributed by or through T-Mobile and/or ZTE (the "'966 T-Mobile Mobile Devices"). These devices are collectively referred to as the "'966 ZTE Devices."

37. Defendants directly infringe the apparatus claims of the '966 patent by making, using, testing, offering to sell, selling, and/or importing the '966 ZTE Devices. Defendants also

directly infringe the '966 patent by making, using, testing, selling, offering for sale, and/or importing the '966 ZTE Devices to practice the claimed methods. Defendants are thereby liable for direct infringement.

38. Specifically, each of the '966 ZTE Devices initializes a first power control adjustment state for an uplink control channel and a second power control adjustment state for an uplink shared channel, computes an initial transmit power for the uplink shared channel using full path loss compensation, and sends a message on the uplink shared channel at the initial transmit power, as recited in claims 1-7, 9, and 10-16 of the '966 patent. *See, e.g.*, 3GPP TS 36.213 regarding uplink power control and non-synchronized physical random access procedure.

39. Additionally, Defendants are liable for indirect infringement of the '966 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including, but not limited to, cellular network providers and/or their subscribers) and other end users who use the '966 ZTE Devices to practice the claimed methods.

40. Each Defendant has had knowledge of the '966 patent, at least as early as service of this First Amended Original Complaint. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at *17 (E.D. Tex. Jul. 27, 2012). Each Defendant is, however, a 3rd Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, Defendants received actual notice of the declared essential patents at issue here. The '966 patent is one such patent, and Defendants have known of the patent application that issued as the '966 patent at least as early as June 2011, when it was disclosed to 3GPP via ETSI.

41. Despite having knowledge of the '966 patent, Defendants named in this Count have and continue to specifically intend for persons who acquire and use such devices, including

Defendants' customers, to use such devices in a manner that infringes the '966 patent, including at least claims 1-7. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the '966 ZTE Devices.

42. In particular, despite having knowledge of the '966 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, and similar online resources (available via http://www.zteusa.com/support_page, for instance) that specifically teach the customers and other end users to use the '966 ZTE Devices in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

43. Additionally, Defendants named in this Count know, and have known, that the '966 ZTE Devices include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '966 patent and are not staple articles of commerce suitable for substantial non-infringing use.

44. Specifically, each of the '966 ZTE Devices contains at least a baseband processor, memory, and a transmitter which contains functionality that is specifically programmed and/or configured to initialize a first power control adjustment state for an uplink control channel and a second power control adjustment state for an uplink shared channel, compute an initial transmit power for the uplink shared channel using full path loss compensation, and send a message on the uplink shared channel at the initial transmit power, as recited in claims 1-7, 9, and 10-16 of the '966 patent.

45. ZTE and AT&T test, make, use, offer for sale, sell, and/or import the '966 AT&T Mobile Devices described in this Count, pursuant to one or more contractual agreements between

them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

46. ZTE and Sprint test, make, use, offer for sale, sell, and/or import the '966 ZTE Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

47. ZTE and T-Mobile test, make, use, offer for sale, sell, and/or import the '966 T-Mobile Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

48. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates it for their infringements, 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 III

(INFRINGEMENT OF U.S. PATENT NO. 9,037,129)

49. CCE incorporates paragraphs 1 through 16 herein by reference.

50. CCE is the assignee of the '129 patent, entitled "Method, Network and Device for Information Provision by Using Paging and Cell Broadcast Services," with ownership of all substantial rights in the '129 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '129 patent is attached as Exhibit C.

51. The '129 patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

52. Defendants ZTE, AT&T, Sprint, and T-Mobile have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '129 patent in this judicial district and elsewhere in Texas and the United States, including at least claims 1, 2, 4, 7, 8, and 10 without the consent or authorization of CCE, by or through their making, having made, offering for sale, selling, importing, testing, and/or use of ZTE mobile devices, including, for example: the ZTE Unite III, ZTE Axon, and ZTE Imperial II, sold or otherwise distributed by or through ZTE; the ZTE ZMAX 2, ZTE Mobley, ZTE Maven, and ZTE AT&T Velocity, sold or otherwise distributed by or through AT&T and/or ZTE (the "'129 AT&T Mobile Devices"); the ZTE Warp Elite, ZTE Max + (a.k.a. ZTE Max Plus), ZTE Speed (a.k.a. ZTE N9130), and ZTE Prestige, sold or otherwise distributed by or through Sprint and/or ZTE (the "'129 Sprint Mobile Devices"); and the ZTE T-Mobile Sonic 2.0 Mobile Hotspot, ZTE Obsidian, ZTE Grand X Max Plus, ZTE Avid Plus, and ZTE T-Mobile 4G LTE Hotspot Z915, sold or otherwise distributed by or through T-Mobile and/or ZTE (the "'129 T-Mobile Mobile Devices"). These devices are collectively referred to as the "'129 ZTE Devices."

53. Defendants directly infringe the apparatus claims of the '129 patent by making, using, testing, offering to sell, selling, and/or importing the '129 ZTE Devices. Defendants also directly infringe the '129 patent by making, using, selling, offering for sale, and/or importing the '129 ZTE Devices to practice the claimed methods. Defendants are thereby liable for direct infringement.

54. Specifically, each of the '129 ZTE Devices stores a group of specific identifiers common to a plurality of terminals supporting an emergency warning, checks whether a paging message received from a base station includes at least one specific identifier of the group of the

specific identifiers, switches to a broadcast mode for receiving broadcast content on a broadcast channel only if the received paging message includes the at least one specific identifier, and establishes at least one of a physical channel and a logical channel only if the received paging message includes a temporary mobile subscriber identity allocated to the terminal, as recited in claims 1, 2, 4, 7, 8, and 10 of the '129 patent. *See, e.g.*, the public warning system disclosed in 3GPP TS 22.268 and portions of 3GPP TS 36.331 and 3GPP TS 23.041 which provide protocol specification and cell broadcast service implementation details.

55. Additionally, Defendants are liable for indirect infringement of the '129 patent because they induce and/or contribute to the direct infringement of the patent by their customers (including, but not limited to, cellular network providers and/or their subscribers) and other end users who use the '129 ZTE Devices to practice the claimed methods.

56. Each Defendant has had knowledge of the '129 patent, at least as early as service of this First Amended Original Complaint. *See, e.g., Patent Harbor, LLC v. Dreamworks Animation SKG, Inc.*, No. 6:11-cv-229, 2012 U.S. Dist. LEXIS 114199, at *17 (E.D. Tex. Jul. 27, 2012).

57. Despite having knowledge of the '129 patent, Defendants named in this Count have and continue to specifically intend for persons who acquire and use such devices, including Defendants' customers, to use such devices in a manner that infringes the '129 patent, including at least claims 1, 2, and 4. This is evident when Defendants encourage and instruct customers and other end users in the use and operation of the '129 ZTE Devices.

58. In particular, despite having knowledge of the '129 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals, and similar online resources (available via http://www.zteusa.com/support_page, for instance) that specifically teach the customers and other end users to use the '129 ZTE Devices in an

infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

59. Additionally, Defendants named in this Count know, and have known, that the '129 ZTE Devices include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '129 patent and are not staple articles of commerce suitable for substantial non-infringing use.

60. Specifically, each of the '129 ZTE Devices contain at least a baseband processor and memory which contains functionality that is specifically programmed and/or configured to at least store a group of specific identifiers common to a plurality of terminals supporting an emergency warning, check whether a paging message received from a base station includes at least one specific identifier of the group of the specific identifiers, switch to a broadcast mode for receiving broadcast content on a broadcast channel only if the received paging message includes the at least one specific identifier, and establish at least one of a physical channel and a logical channel only if the received paging message includes a temporary mobile subscriber identity allocated to the terminal, as recited in claims 1, 2, 4, 7, 8, and 10 of the '129 patent.

61. ZTE and AT&T test, make, use, offer for sale, sell, and/or import the '129 AT&T Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

62. ZTE and Sprint test, make, use, offer for sale, sell, and/or import the '129 Sprint Mobile Devices described in this Count, pursuant to one or more contractual agreements between

them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and Sprint are jointly, severally, or alternatively liable for infringements described in this Count.

63. ZTE and T-Mobile test, make, use, offer for sale, sell, and/or import the '129 T-Mobile Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

64. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates it for their infringements, 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 IV

(INFRINGEMENT OF U.S. PATENT NO. 7,941,174)

65. CCE incorporates paragraphs 1 through 16 herein by reference.

66. CCE is the assignee of the '174 patent, entitled "Method for Multicode Transmission by a Subscriber Station," with ownership of all substantial rights in the '174 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '174 patent is attached as Exhibit D.

67. The '174 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

68. Defendants ZTE, AT&T, and T-Mobile have and continue to directly and/or indirectly infringe (by inducing infringement and/or contributing to infringement) one or more claims of the '174 patent in this judicial district and elsewhere in Texas and the United States, including at least claims 1, 6, 9, 14, 18, and 19, without the consent of CCE, by or through their

making, having made, offering for sale, selling, importing, and/or use of ZTE mobile devices, including, for example: the ZTE Avail, ZTE Z221 GoPhone, ZTE Z431 GoPhone, ZTE Radiant, ZTE Z998, ZTE Avail 2, ZTE Z331, ZTE Sonata 4G, ZTE Prelude, ZTE Velox, ZTE AT&T Home Base, ZTE Compel, and ZTE Z432, sold or otherwise distributed by or through AT&T and/or ZTE (the “’174 AT&T Mobile Devices”); the ZTE Concord, ZTE T-Mobile 4G Hotspot, ZTE T-Mobile Sonic 2.0 Mobile Hotspot, ZTE Concord II, ZTE T-Mobile 4G HotSpot Z64, and ZTE Zmax, sold or otherwise distributed by or through T-Mobile and/or ZTE (the “’174 T-Mobile Mobile Devices”), and the ZTE Grand S, ZTE Nubia 5, ZTE Nubia 5S Mini LTE, ZTE Solar, ZTE Whirl, and ZTE Grand X, sold or otherwise distributed by or through ZTE. These devices are collectively referred to as the “’174 ZTE Devices.”

69. Defendants directly infringe the apparatus claims of the ’174 patent by making, offering to sell, selling, and/or importing the ’174 ZTE Devices. Defendants also directly infringe the ’174 patent by making, using, selling, offering for sale, and/or importing the ’174 ZTE Devices to practice the claimed methods. Defendants are thereby liable for direct infringement.

70. The ’174 patent relates to the management of transmission power levels on cellular devices. Each of the ’174 ZTE Devices is a claimed “subscriber station” configured to support and provide wireless communications in a Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Network (UTRAN) environment. To address certain challenges arising from the use of multiple subscriber stations on the same frequency, the patent describes and claims a technique for determining and maintaining a “transmit power difference,” which ensures that a power reserve remains available while a subscriber station is transmitting.

71. Specifically, each of the ’174 ZTE Devices is a subscriber station assigned a plurality of codes for transmitting wireless messages and is programmed to determine a transmit

power difference which is maintained by the subscriber station between, on one hand, a total maximum transmit power of the subscriber station for the codes, and, on the other hand, a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes, as claimed in claims 1, 6, 9, 14, 18, and 19 of the '174 patent. *See, e.g.*, subscriber station multi-code transmission implementations in 3GPP TS 25.213, TS 25.215, TS 25.133, and TS 25.214.

72. Additionally, Defendants are liable for indirect infringement of the '174 patent because they induce and/or contribute to the direct infringement of the patent by their customers and other end users who use the '174 ZTE Devices to practice the claimed methods.

73. At a minimum, Defendants have known of the '174 patent as of service of the original complaint in Civil Action No. 6:13-cv-511 filed in this District on June 25, 2013. Each Defendant is, however, a 3rd Generation Partnership Project (or "3GPP") member organization, or is affiliated with a 3GPP member organization. 3GPP solicits identification of standard essential patents, and, through 3GPP, Defendants received actual notice of the declared essential patents at issue here. The '174 patent is one such patent, and Defendants have known of the patent application that issued as the '174 patent at least as early as August 2010, when it was disclosed to 3GPP via ETSI.

74. Despite having knowledge of the '174 patent, Defendants named in this Count have and continue to specifically intend for persons who acquire and use such devices, including Defendants' customers, to use such devices in a manner that infringes the '174 patent, including at least claims 1, 6, 9, and 14. This is evident when Defendants encourage and instruct customers and other end users in the user and operation of the '174 ZTE Devices.

75. In particular, despite having knowledge of the '174 patent, Defendants have provided, and continue to provide, instructional materials, such as user guides, owner manuals,

and similar online resources (available via http://www.zteusa.com/support_page, for instance) that specifically teach the customers and other end users to use the '174 ZTE Devices in an infringing manner. By providing such instructions, Defendants know (and have known), or should know (and should have known), that their actions have, and continue to, actively induce infringement.

76. Additionally, Defendants named in this Count know, and have known, that the '174 ZTE Devices include proprietary hardware components and software instructions that work in concert to perform specific, intended functions. Such specific, intended functions, carried out by these hardware and software combinations, are a material part of the inventions of the '174 patent and are not staple articles of commerce suitable for substantial non-infringing use.

77. Each of the '174 ZTE Devices includes hardware and software (including memory, one or more processors, radios, firmware, and drivers) configured to support and provide wireless communications in a Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Network (UTRAN) environment. More specifically, each of the '174 ZTE Devices includes at least a baseband processor that is specifically programmed and/or configured to determine a transmit power difference that is maintained between, on one hand, a total maximum transmit power of the subject device for the codes, and, on the other hand, a total transmit power of the subject device for the codes at a start of a message transmission using a first one of the codes, as claimed in claims 1, 6, 8, 14, 18, and 19 of the '174 patent.

78. ZTE and AT&T test, make, use, offer for sale, sell, and/or import the '174 AT&T Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and AT&T are jointly, severally, or alternatively liable for infringements described in this Count.

79. ZTE and T-Mobile test, make, use, offer for sale, sell, and/or import the '174 T-Mobile Mobile Devices described in this Count, pursuant to one or more contractual agreements between them relating to, at least, the distribution and sale of such devices. Accordingly, ZTE and T-Mobile are jointly, severally, or alternatively liable for infringements described in this Count.

80. CCE has been damaged as a result of Defendants' infringing conduct described in this Count. Defendants are, thus, liable to CCE in an amount that adequately compensates CCE for their infringements, 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.

JOINDER OF PARTIES

81. CCE incorporates paragraphs 1 through 80 herein by reference.

82. On information and belief, AT&T, Sprint, and T-Mobile have each purchased or otherwise acquired from ZTE certain mobile devices for sale, resale, and/or distribution to their customers (and other end users) that are the subject of Counts I through IV (or some subset thereof). Thus, for these Counts, the right to relief against AT&T, Sprint, and/or T-Mobile is asserted jointly and severally with ZTE.

83. The alleged infringements set forth in Counts I through IV arise out of the same transaction, occurrence, or series of transactions or occurrences relating to the testing, making, using, offering for sale, selling, and/or importing of the ZTE mobile devices made the subject of Counts I through IV.

84. Questions of fact common to all Defendants will arise in this action including, for example, infringement by, or through use of, ZTE mobile devices.

85. Thus, joinder of ZTE, AT&T, Sprint, and T-Mobile is proper in this litigation pursuant to 35 U.S.C. § 299(a).

WILLFULNESS

86. Despite having knowledge of the asserted patents, and knowledge that they are directly and/or indirectly infringing claims of the asserted patents, Defendants named in this Count have nevertheless continued their infringing conduct in an egregious manner. This includes, but is not limited to: (i) Defendants' collective willful blindness, including their steadfast refusal to investigate whether the accused products infringe the asserted claims of, at least, the '820 and '174 patents; and (ii) ZTE's active participation as petitioner in failed *Inter Partes* Reviews of the asserted claims of the '820 and '174 patents filed in July 2014, which failures should have educated ZTE as to the unreasonableness of Defendants' invalidity defenses. For at least these reasons, Defendants' infringing activities detailed above have been, and continue to be, willful, wanton and deliberate in disregard of CCE's rights, justifying an enhanced damages award under 35 U.S.C. § 284.

JURY DEMAND

CCE hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

CCE requests that the Court find in its favor and against Defendants, and that the Court grant CCE the following relief:

- a. Judgment that one or more claims of the '820, '966, '129 and '174 patents have been infringed, either literally and/or under the doctrine of equivalents, by Defendants and/or by others whose infringements have been induced by Defendants and/or by others to whose infringements Defendants have contributed;
- b. Judgment that Defendants account for and pay to CCE all damages to and costs incurred by CCE because of Defendants' infringing activities and other conduct complained of herein;

- c. Judgment that Defendants account for and pay to CCE a reasonable, ongoing, post-judgment royalty because of Defendants' infringing activities and other conduct complained of herein;
- d. That Defendants' infringements relative one or more of the '820, '966, '129 and '174 patents be found willful from the time that Defendants became aware of the infringing nature of their products, and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284;
- e. That CCE be granted pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein; and
- f. That CCE be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: **July 11, 2016**

Respectfully submitted,

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