

UNITED STATES DISTRICT COURT  
DISTRICT OF DELAWARE

EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	Case No. _____
ZTE CORPORATION,	)	
ZTE (USA) INC., AND	)	<b>JURY TRIAL DEMANDED</b>
ZTE SOLUTIONS INC.	)	
	)	
Defendants.	)	

---

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Evolved Wireless, LLC (“Evolved Wireless”), for its causes of action against Defendants, ZTE Corporation, ZTE (USA) Inc., and ZTE Solutions Inc. (collectively “ZTE”), states and alleges on knowledge and information and belief as follows:

**PARTIES**

1. Plaintiff Evolved Wireless is a limited liability company organized and existing under the laws of the State of Delaware with its principal place of business at 805 Las Cimas Parkway, Suite 240, Austin, Texas 78746.

2. On information and belief, Defendant ZTE Corporation is a foreign company organized and existing under the laws of China with its principle place of business at No. 55, Hitech Road South, Shenzhen, China 518057.

3. On information and belief, Defendant ZTE (USA) Inc. is a New Jersey corporation with its principle place of business located at 2425 N. Central Expressway, Ste. 323, Richardson, Texas 75080.

4. On information and belief, Defendant ZTE Solutions Inc. is a Delaware corporation with its principal place of business located at 2425 N. Central Expressway, Ste. 323, Richardson, Texas 75080. Defendant ZTE Solutions Inc. has designated Corporation Service Company, 2711 Centerville Rd Ste 400, Wilmington, DE 19808 as its registered agent.

### **JURISDICTION**

5. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a), in that this action arises under the federal patent statutes, 35 U.S.C. §§ 271 and 281-285.

6. This Court has personal jurisdiction over ZTE. Upon information and belief, Defendant ZTE Solutions Inc. is organized under Delaware law. As such, ZTE has purposefully availed itself of the privilege of conducting business within this judicial district and has established sufficient minimum contacts such that they should reasonably and fairly anticipate being hailed into court in this judicial district.

7. Upon information and belief, ZTE has committed and continues to commit acts giving rise to this action within Delaware and within this judicial district and ZTE has established minimum contacts within the forum such that the exercise of jurisdiction over ZTE would not offend traditional notions of fair play and substantial justice. For example, ZTE has committed and continues to commit acts of infringement in this District, by among other things, offering to sell and selling products that infringe Evolved Wireless's LTE Patent Portfolio, as defined below, including smartphones and other mobile devices. In conducting its business in Delaware and this judicial district, ZTE derives substantial revenue from infringing products being sold, used, imported, and/or offered for sale or providing service and support to ZTE's customers in Delaware and this District, and will continue to do so unless enjoined by this Court.

**VENUE**

8. Venue in the District of Delaware is proper pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b) because ZTE has committed acts within this judicial district giving rise to this action, and ZTE has and continues to conduct business in this judicial district, including one or more acts of selling, using, importing, and/or offering for sale infringing products or providing service and support to ZTE's customers in this District.

9. Venue in the District of Delaware is further proper because Evolved Wireless is incorporated in the state of Delaware.

**BACKGROUND**

10. The Third Generation Partnership Project ("3GPP") develops standards for globally-applicable commercial cellular systems. The Organizational Partners of 3GPP are major telecommunications standards developing organizations from around the world, including the European Telecommunications Standards Institute ("ETSI"), the North American Alliance for Telecommunication Industry Solutions, the Telecommunications Technology Association of Korea, and a few others. Companies participate in 3GPP via their membership in one of the Organizational Partners. ZTE and LG Electronics, Inc. are members of at least one Organizational Partner, either directly or through their subsidiaries.

11. Global standards establish precise specifications for the essential components of telecommunications systems and are fundamental in allowing products and services from unrelated competitors to be compatible and operate seamlessly with a telecommunications network.

12. The 3GPP standards for cellular wireless communications are known as Releases. Release 8 describes the first version of the Long Term Evolution ("LTE") standard.

The LTE standard network includes Evolved Universal Terrestrial Access Network (“E-UTRAN”) and a Core Network called Evolved Packet Core.

13. Each Release consists of a series of technical specifications (“TS”). The 3GPP 36 series of technical specifications covers the E-UTRAN, including at least TS 36.211, .300, .321, .331, and .423. Starting with Release 8, LTE has been commercially available in the United States since around 2010.

14. Developing these standards is an iterative process in which industry players compete to find novel solutions to the standard’s technical challenges and goals, including increased data rates and throughput, reduced latency, and higher reliability. The member companies participate in 3GPP Working Groups to discuss, vote, and select the most appropriate technology among competing proposals to provide each individual function within the standard. Therefore, technologies patented by the members become part of the 3GPP standards.

15. 3GPP participants must abide by the intellectual property rights (“IPR”) policy of the Organizational Partners to which they belong. These IPR policies, such as the ETSI IPR policy, are intended to strike “a balance between the needs of standardization for public use in the field of telecommunications and the rights of the owners of IPRs.”<sup>1</sup> “IPR holders whether members of ETSI and their AFFILIATES or third parties, should be adequately and fairly rewarded for the use of their IPRs in the implementation of STANDARDS and TECHNICAL SPECIFICATIONS.”<sup>2</sup>

16. 3GPP participants are required to disclose intellectual property (including patents and patent applications) owned by them which they believe are or are likely to become

---

<sup>1</sup> ETSI Rules of Procedure, Annex 6: ETSI Intellectual Property Rights Policy § 3.1 (2014), available at <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>.

<sup>2</sup> *Id.* § 3.2.

essential, or might be essential, to any 3GPP standard, including LTE. Companies are also required by IPR policies to license their intellectual property on terms that are fair, reasonable, and non-discriminatory (“FRAND”).<sup>3</sup> These policies bind all successors-in-interest to license essential intellectual property on FRAND terms.<sup>4</sup>

### **EVOLVED WIRELESS**

17. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

18. Evolved Wireless owns, through assignments originating with LG Electronics, Inc. (“LG”), a standard-essential patent portfolio relating to LTE wireless communication systems. The portfolio, which includes United States Patent Nos. 7,746,916, 7,768,965, 7,809,373, 7,881,236, and 8,218,481 (collectively referred to herein as “LTE Patent Portfolio”), is essential to the 3GPP 36 Series technical specifications, including at least TS 36.211, .300, .321, .331, and .423.

19. As an ETSI member, LG extensively participated in 3GPP Working Group meetings to develop the LTE standards. LG submitted numerous proposals for incorporation into the standards, and LG’s research and development efforts solved significant technical challenges facing the standards. The LTE Patent Portfolio claims several of LG’s technical solutions that solve technical challenges in wireless telecommunications technology.

20. Evolved Wireless continues to innovate and contribute additional inventions to the LTE wireless communication system.

---

<sup>3</sup> *Id.* § 6.1.

<sup>4</sup> *Id.* § 6.1bis.

## **OVERVIEW OF MOBILE TELECOMMUNICATIONS**

21. Mobile (cellular) phones and devices allow users to make or receive telephone calls and transmit and receive data wirelessly over a wide geographical area.

22. Around 1980, first generation (“1G”) mobile phones were introduced to the public. These phones used analog modulation techniques, specifically frequency division multiple access, to transmit voice calls.

23. In the 1990s, second generation (“2G”) phones emerged. These phones used digital technology, which permitted more efficient use of the radio spectrum than their 1G predecessor. While second generation systems were originally designed only for voice, they were later enhanced to include data transmission, but could only achieve low data rates.

24. During the same time period of growth for 2G communications systems, overall use of the Internet also increased. In response to user demand for higher data rates, third generation (“3G”) phones emerged.

25. While voice calls traditionally dominated the traffic in mobile communications, the increasing number of mobile devices and the advancement of mobile device technology with increased features and data-hungry applications drove demand for faster and more reliable data transmissions. Data traffic over cellular networks has therefore increased dramatically since the mid to late 2000s.

26. Given the increased demand for data, coupled with limited available radio spectrum, mobile communication developers were required to create a standard that, compared with 3G, offered much higher data rates, lower latency, and improved overall user experience. LTE is the result of this development.

**EVOLVED WIRELESS'S STANDARD-ESSENTIAL LTE PATENT PORTFOLIO**

27. Evolved Wireless's LTE Patent Portfolio is rooted in mobile telecommunications technology and solves particular problems arising in wireless cellular communications between mobile devices and cellular networks.

28. The above-mentioned benefits of LTE, such as higher throughput and lower latency, could be achieved only after significant challenges were overcome. These challenges included at least interference management and signal processing. The LTE Patent Portfolio addresses some of these challenges and offers specific solutions to improve mobile device functionality over the prior art with faster, more reliable, and more efficient voice and data transmissions.

**UNITED STATES PATENT NO. 7,746,916 ("THE '916 PATENT")**

29. United States Patent No. 7,746,916 ("the '916 Patent"), entitled "Method and Apparatus for Generating and Transmitting Code Sequence in a Wireless Communication System," was issued on June 29, 2010. Evolved Wireless is the owner and assignee of the '916 Patent.

30. On November 29, 2006, the '916 Patent inventors assigned the entire right, title, and interest of the '916 Patent to LG, which was duly recorded in the U.S. Patent and Trademark Office ("USPTO") on March 15, 2007. LG assigned the entire right, title, and interest of the '916 Patent to TQ Lambda LLC on February 7, 2014, which was duly recorded in the USPTO on March 4, 2014. On September 26, 2014, TQ Lambda LLC assigned the entire right, title, and interest of the '916 Patent to Evolved Wireless, which was duly recorded in the USPTO on October 27, 2014.

31. The '916 patented technology relates to a technique for obtaining a plurality of code sequences with certain properties that results in an improved telecommunication system to overcome limitations rooted in prior art telecommunication system technology. Obtaining code sequences in the way claimed by the '916 Patent is fundamental to the operation of LTE and is used in several aspects, including random access preambles and uplink reference signals.

32. Among other limitations, the method for sequence generation in 3G systems resulted in a limited number of different code sequences. Because the number of code sequences was limited, telecommunication systems either had a higher level of interference or were only able to serve a limited number of mobile phones for a particular base station. This shortcoming is addressed by the '916 patented technology.

33. The '916 Patent describes the state of the art where “a pilot signal or preamble of a wireless communication system is referred to as a reference signal used for initial synchronization, cell search, and channel estimation. Further, the preamble is comprised of a code sequence, and the code sequence is further comprised of orthogonal or quasi-orthogonal [codes] which represent good correlation properties.” (Ex. 1, 1:20-26.)

34. The '916 Patent further describes the problems associated with prior art code sequences. “Although the [Hadamard] code sequence and a poly-phase Constant Amplitude Zero Auto-Correlation (CAZAC) code sequence are orthogonal codes, [the] number of codes used to maintain orthogonality is limited.” (*Id.* at 1:31-34.)

35. Thus, the '916 Patent solved at least one particular problem arising from synchronizing mobile devices to cell towers using code sequences. “Accordingly, the ['916 Patent] is directed to a method and apparatus for generating and transmitting code sequence in a



wireless communication system that substantially obviates one or more problems due to limitations and disadvantages of the related art.” (*Id.* at 1:51-55.)

**UNITED STATES PATENT NO. 7,768,965 (“THE ’965 PATENT”)**

36. United States Patent No. 7,768,965 (“the ’965 Patent”), entitled “Method for Transmitting and Receiving Signals Based on Segmented Access Scheme and Method for Allocating Sequence for the Same,” was issued August 3, 2010. Evolved Wireless is the owner and assignee of the ’965 Patent.

37. On March 2 and March 9, 2009, the ’965 Patent inventors assigned the entire right, title, and interest of the ’965 Patent to LG, which was duly recorded in the USPTO on March 13, 2009. LG assigned the entire right, title, and interest of the ’965 Patent to TQ Lambda LLC on February 7, 2014, which was duly recorded in the USPTO on March 4, 2014. On September 26, 2014, TQ Lambda LLC assigned the entire right, title, and interest of the ’965 Patent to Evolved Wireless, which was duly recorded in the USPTO on October 27, 2014.

38. The ’965 patented technology is directed generally to an apparatus and method for transmitting and receiving codes used by mobile devices.

39. In prior art telecommunications systems, as cell size increased, longer preambles were required to accommodate mobile devices farther away from the cell tower. Mobile devices close to the cell tower also used the same longer preamble length. This in part resulted in increased overhead to telecommunications systems. “For instance, in case that 1 subframe is used as an RACH or a ranging channel in 3GPP LTE system, the system uses  $\frac{1}{20}$  of overhead as the RACH or the ranging channel. Yet, if 5 subframes need to be used due to an increased cell size, the overhead increases 5 times to considerably affect overall system performance.” (Ex. 2, 3:15-20.)

40. The '965 patented technology addressed this problem by providing a method according to which different mobile devices can use preambles of different length based at least in part on their location within a cell, rather than the size of the cell area. The '965 recognizes that a short sequence can be used by mobile devices in the center of a cell, and a long sequence can be used by mobile devices at the edge of a cell. This reduced the overhead experienced by the telecommunication system while reducing the probability of collision with other mobile devices within a cell.

41. The '965 Patent describes collision as one aspect of the technical problems associated with larger cell sizes: when mobile devices (user equipment) “within a large cell use an identically specified sequence, probability of collision in an RACH or ranging channel slot can be raised in proportion to an increasing number of user equipment[] within the corresponding cell.” (*Id.* at 3:28-32.) Thus, “the demand for a technology in reducing probability of collision occurrence in the same RACH or ranging channel slot and [reducing] overhead attributed to an RACH or a ranging channel in a large cell has risen.” (*Id.* at 3:33-36.)

42. The '965 Patent claims at least one technical solution to this particular prior art problem. “An object of the present invention is to reduce probability of collision possible in using an identical sequence by entire user equipment[] within a cell in a manner of providing a sequence set differently allocated according to a location of a user equipment within a cell.” (*Id.* at 4:1-5.)

**UNITED STATES PATENT NO. 7,809,373 (“THE '373 PATENT”)**

43. United States Patent No. 7,809,373 (“the '373 Patent”), entitled “Method of Transmitting and Receiving Radio Access Information in a Wireless Mobile Communication

System,” was issued on October 5, 2010. Evolved Wireless is the owner and assignee of the ’373 Patent.

44. On September 7, 2006, the ’373 Patent inventors assigned the entire right, title, and interest of the ’373 Patent to LG, which was duly recorded in the USPTO on November 2, 2006. LG assigned the entire right, title, and interest of the ’373 Patent to TQ Lambda LLC on February 7, 2014, which was duly recorded in the USPTO on March 4, 2014. On September 26, 2014, TQ Lambda LLC assigned the entire right, title, and interest of the ’373 Patent to Evolved Wireless, which was duly recorded in the USPTO on October 27, 2014.

45. The ’373 patented technology is directed generally to the handover of a mobile device from one cell tower base station (the source base station) to another cell tower base station (the target base station). Handovers are fundamental to the cellular architecture of wireless telecommunication systems.

46. When a mobile device moves to the coverage area of a new base station, the mobile device must send a signal to establish synchronization and make scheduling requests. The signal includes a random access preamble selected randomly for a limited number of signatures. Problems arise with this prior art handover method. Specifically, the random access message is susceptible to collision and disruption during the handover from, among other things, multiple devices using the same preamble message. As more and more devices enter and leave the cell area, the likelihood of collision increases. Any collisions will increase service interruption, ultimately reducing the quality and/or availability of service.

47. The ’373 patented technology addresses problems specifically arising out of using a limited number of preambles in a random access process to access a base station as the number of mobile devices within the cell increases. The ’373 Patent discloses a mobile device

that receives a dedicated preamble supplied by the target base station by means of the source base station. The mobile device uses the dedicated preamble after the handover process to eliminate the likelihood of collision, which can reduce handover processing time and in turn result in a faster and more efficient method of accessing the target base stations.

48. More specifically, the '373 Patent describes at least one technical problem existing in prior art methods to handover mobile devices (mobile terminals) from one cell tower to another. "In the related art, when the mobile terminal moves from a source cell to a target cell, the mobile terminal uses a RACH to transmit a cell update message to the target cell. However, because of a possibility of RACH collision (i.e. the same signature is being selected from multiple terminals that use of the RACH), the processing time for the handover process may be delayed." (Ex. 3, 5:51-57.)

49. With this particular prior art problem in mind, the '373 Patent claims at least one technical solution for providing the mobile device with handover information prior to the actual handover in order to reduce handover processing time. "In contrast [to the prior art], the features of the present invention provide that the terminal receives necessary information from a source cell in advance (i.e., before the terminal transmits a RACH setup request to a network) in order to utilize the RACH in a later step. As a result, the terminal can connect with the target cell with minimal delays." (*Id.* at 5:58-63.)

**UNITED STATES PATENT NO. 7,881,236 ("THE '236 PATENT")**

50. United States Patent No. 7,881,236 ("the '236 patent"), entitled "Data Transmission Method and User Equipment for the Same," was issued on February 1, 2011. Evolved Wireless is the owner and assignee of the '236 Patent.

51. On July 29, 2009, the '236 Patent inventors assigned the entire right, title, and interest of the '236 Patent to LG, which was duly recorded in the USPTO on August 13, 2009. LG assigned the entire right, title, and interest of the '236 Patent to TQ Lambda LLC on February 7, 2014, which was duly recorded in the USPTO on March 4, 2014. On September 26, 2014, TQ Lambda LLC assigned the entire right, title, and interest of the '236 Patent to Evolved Wireless, which was duly recorded in the USPTO on October 27, 2014.

52. The '236 Patent avoids problems arising from transmission errors when data stored in a mobile device's Msg3 buffer is transmitted regardless of the reception mode of the Uplink Grant signal. The '236 Patent describes that problems occur "if the data stored in the Msg3 buffer is transmitted in correspondence with the reception of *all* UL Grant signals." (Ex. 4, 4:30-32 (emphasis added).)

53. The '236 Patent claims at least one technical solution to this particular problem arising in mobile device uplink grants. "An object of the present invention is to provide a data transmission method and a user equipment for the same, which is capable of solving a problem which may occur when data stored in a message 3 (Msg3) buffer is transmitted according to a reception mode of an Uplink (UL) Grant signal." (*Id.* at 4:42-47.)

**UNITED STATES PATENT NO. 8,218,481 ("THE '481 PATENT")**

54. United States Patent No. 8,218,481 ("the '481 Patent"), entitled "Method of Transmitting Data in a Mobile Communication System," was issued on July 10, 2012. Evolved Wireless is the owner and assignee of the '481 Patent.

55. On June 30 and July 6, 2010, the '481 Patent inventors assigned the entire right, title, and interest of the '481 Patent to LG, which was duly recorded in the USPTO on July 7, 2010. LG assigned the entire right, title, and interest of the '481 Patent to TQ Lambda LLC on

February 7, 2014, which was duly recorded in the USPTO on March 4, 2014. On September 26, 2014, TQ Lambda LLC assigned the entire right, title, and interest of the '481 Patent to Evolved Wireless, which was duly recorded in the USPTO on October 27, 2014.

56. The '481 patented technology is directed generally to an apparatus and method for creating the preamble of a random access signal so as to address the limitations rooted in the prior art. In prior art systems, a preamble of fixed length was used, limiting flexibility under different cell sizes. The '481 patented technology addresses this problem by providing an apparatus and method where a specific sequence is repeated multiple times and a cyclic prefix is added. The resulting preambles are less susceptible to “noise or channel change.” (Ex. 5, 2:49.) The '481 Patent improves the probability of preamble reception by base stations and in turn provides more efficient and reliable cellular connections than prior art systems and methods.

57. The '481 Patent describes a telecommunication system wherein “[a] user equipment uses a random access channel (RACH) to access a network in a state that the user equipment is not uplink synchronized with a base station. A signal having repetitive characteristic in a time domain is used in the random access channel, so that a receiver easily searches a start position of a transmission signal. In general, the repetitive characteristic is realized by repetitive transmission of a preamble.” (*Id.* at 1:24-30.)

58. Further, “[a] representative example of a sequence for realizing the preamble includes a CAZAC (Constant Amplitude Zero Auto Correlation) sequence. . . . [which] has excellent transmission characteristics. However, the CAZAC sequence has limitation[s] in that maximum N-1 number of sequences can be used for a sequence having a length of N.” (*Id.* at 1:32-40.)

59. The '481 Patent describes five prior art methods and the associated problems for “transmitting data from a random access channel by using the CAZAC sequence.” (*Id.* at 1:45-46; *see also* 1:46-2:33.) “[T]he first method is to directly interpret CAZAC sequence ID to message information.” (*Id.* at 1:46-47.) Problems occur, however, because “there is difficulty in realizing a sufficient number of CAZAC sequence sets, and the costs required for search of a receiver increases.” (*Id.* at 1:52-56.)

60. The second and third prior art methods involve either simultaneously transmitting a CAZAC sequence with a Walsh sequence or mixing a CAZAC sequence with a Walsh sequence. (*Id.* at 1:57-59, 2:1-3.) The second method is still limited, however, because “bits of message[s] that can additionally be obtained are only  $\log_2 N$  bits when the Walsh sequence has a length of  $N$ .” (*Id.* at 1:66-67.) Further, the third method encounters problems where “the Walsh sequence acts as noise in detection of the CAZAC sequence [and] cause[s] difficulty in detecting sequence ID.” (*Id.* at 2:8-10.)

61. The fourth prior art method involves modifying the code sequence by either “multiplying an exponential term by a CAZAC sequence or directly apply[ing] data modulation,” (*Id.* at 2:15-17.), and the fifth method involves “attaching a message part to the CAZAC sequence.” (*Id.* at 2:25-26.) These methods “have a problem in that they are susceptible to change of channel condition.” (*Id.* at 31-33.)

62. The '481 Patent claims at least one technical solution for solving limitations with CAZAC sequences existing in the prior art. “[T]he present invention has been suggested to substantially obviate one or more problems due to limitations and disadvantages of the related art, and an object of the present invention is to provide a method of transmitting and receiving message[s] between a user equipment and a base station by using a long sequence to maximize

time/frequency diversity and alleviat[e] performance attenuation due to channel.” (*Id.* at 2:37-44.)

63. “Another object of the present invention is to provide a method of transmitting data through a code sequence in a mobile communication system, in which the quantity of data can be increased and the transmitted data becomes robust to noise or channel change.” (*Id.* at 2:45-49.)

### **ZTE**

64. ZTE sells phones, smartphones, and other wireless devices. Products sold by ZTE include, but are not limited to, the devices listed in Appendix A.

65. ZTE sells, manufactures, imports, and uses certain devices that practice the LTE standards established by ETSI and 3GPP. Indeed, ZTE markets to the public that certain devices are compliant with the LTE standard. (*See* Ex. 6, Grand S Pro User Manual, at 14-15.)

66. ZTE, or its subsidiaries, is a member of ETSI, and was a member during the relevant time period when LG declared the LTE Patent Portfolio to ETSI.

67. The 3GPP Working Group meetings evaluated competing technologies that could best serve the essential functions necessary to standardize wireless communications. ZTE regularly sent representatives to these 3GPP Working Group meetings and participated in the development of the LTE standards.

### **LICENSING EFFORTS**

68. On May 4, 2015, Evolved Wireless sent James Ray Wood, Chief Patent Officer for ZTE (USA) Inc., a letter offering to engage in licensing discussions on FRAND terms for Evolved Wireless’s LTE Patent Portfolio. Evolved Wireless further sent Mr. Wood e-mails on May 4, May 12, and May 20, 2015, to open up licensing discussions.



69. After ZTE did not respond to any communications, Evolved Wireless sent another letter on June 3, 2015 to Mr. Wood again offering to negotiate a license with ZTE to its LTE Patent Portfolio on FRAND terms. The letter included a detailed list of Evolved Wireless's intellectual property, including identifying the patents in Evolved Wireless's LTE Patent Portfolio.

70. Evolved Wireless has continuously offered ZTE a license to its standard-essential LTE Patent Portfolio on FRAND terms.

71. ZTE has not responded to any communications, let alone has it entered any licensing negotiations or discussions with Evolved Wireless for the LTE Patent Portfolio.

### **COUNT I**

#### **INFRINGEMENT OF U.S. PATENT NO. 7,746,916**

72. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

73. ZTE has infringed, induced infringement, and/or contributed to infringement of the '916 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '916 Patent, including but not limited to cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, including at least TS 36.211, .300, .321, .331, and .423.

74. On information and belief, ZTE has actively induced and is actively inducing third parties, such as ZTE's customers, to directly infringe the '916 Patent in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(b). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones

and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '916 Patent. Moreover, ZTE specifically intends for and encourages its customers to use their products in violation of the '916 Patent. For example, by marketing and selling its cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, ZTE has encouraged and is encouraging its customers to use the products to directly infringe the '916 Patent.

75. Further, on information and belief, ZTE has also contributed to and is contributing to direct infringement of the '916 Patent by third parties, such as ZTE's customers, in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(c). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '916 Patent. Moreover, because the '916 Patent is essential to the LTE standards, ZTE's cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards are material in practicing the '916 Patent, are especially made to infringe the '916 Patent, and have no substantial non-infringing uses.

76. ZTE's LTE devices that infringe the '916 Patent include, but are not limited to, at least the devices listed in Appendix A.

77. At least as early as the service of this Complaint, ZTE has notice of the '916 Patent and the infringement alleged herein.

78. At least as early as the service of this Complaint, ZTE has knowingly induced others to directly infringe the '916 Patent.

79. At least as early as the service of this Complaint, ZTE has knowingly contributed to the infringement of the '916 Patent.

80. At least as early as the service of this Complaint, ZTE has willfully infringed the '916 Patent.

81. ZTE does not have a license or permission to use the claimed subject matter in the '916 Patent.

82. ZTE will continue to infringe the '916 Patent without a license unless otherwise ordered by this Court. As a result of ZTE's infringement of the '916 Patent, Evolved Wireless has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by ZTE, together with interest and costs as fixed by the Court.

## **COUNT II**

### **INFRINGEMENT OF U.S. PATENT NO. 7,768,965**

83. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

84. ZTE has infringed, induced infringement, and/or contributed to infringement of the '965 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '965 Patent, including but not limited to cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, including at least TS 36.211, .300, .321, .331, and .423.

85. On information and belief, ZTE has actively induced and is actively inducing third parties, such as ZTE's customers, to directly infringe the '965 Patent in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(b). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '965 Patent. Moreover, ZTE specifically intends for and encourages its customers to use their products in violation of the '965 Patent. For example, by marketing and selling its cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, ZTE has encouraged and is encouraging its customers to use the products to directly infringe the '965 Patent.

86. Further, on information and belief, ZTE has also contributed to and is contributing to direct infringement of the '965 Patent by third parties, such as ZTE's customers, in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(c). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '965 Patent. Moreover, because the '965 Patent is essential to the LTE standards, ZTE's cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards are material in practicing the '965 Patent, are especially made to infringe the '965 Patent, and have no substantial non-infringing uses.

87. ZTE's LTE devices that infringe the '965 Patent include, but are not limited to, at least the devices listed in Appendix A.

88. At least as early as the service of this Complaint, ZTE has notice of the '965 Patent and the infringement alleged herein.

89. At least as early as the service of this Complaint, ZTE has knowingly induced others to directly infringe the '965 Patent.

90. At least as early as the service of this Complaint, ZTE has knowingly contributed to the infringement of the '965 Patent.

91. At least as early as the service of this Complaint, ZTE has willfully infringed the '965 Patent.

92. ZTE does not have a license or permission to use the claimed subject matter in the '965 Patent.

93. ZTE will continue to infringe the '965 Patent without a license unless otherwise ordered by this Court. As a result of ZTE's infringement of the '965 Patent, Evolved Wireless has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by ZTE, together with interest and costs as fixed by the Court.

### **COUNT III**

#### **INFRINGEMENT OF U.S. PATENT NO. 7,809,373**

94. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

95. ZTE has infringed, induced infringement, and/or contributed to infringement of the '373 Patent by making, using, selling, offering for sale, or importing into the United States,

or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '373 Patent, including but not limited to cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, including at least TS 36.211, .300, .321, .331, and .423.

96. On information and belief, ZTE has actively induced and is actively inducing third parties, such as ZTE's customers, to directly infringe the '373 Patent in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(b). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '373 Patent. Moreover, ZTE specifically intends for and encourages its customers to use their products in violation of the '373 Patent. For example, by marketing and selling its cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, ZTE has encouraged and is encouraging its customers to use the products to directly infringe the '373 Patent.

97. Further, on information and belief, ZTE has also contributed to and is contributing to direct infringement of the '373 Patent by third parties, such as ZTE's customers, in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(c). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '373 Patent. Moreover, because the '373 Patent is essential to the LTE standards, ZTE's cellular telephones and/or other devices

with LTE capabilities and that comply with the LTE standards are material in practicing the '373 Patent, are especially made to infringe the '373 Patent, and have no substantial non-infringing uses.

98. ZTE's LTE devices that infringe the '373 Patent include, but are not limited to, at least the devices listed in Appendix A.

99. At least as early as the service of this Complaint, ZTE has notice of the '373 Patent and the infringement alleged herein.

100. At least as early as the service of this Complaint, ZTE has knowingly induced others to directly infringe the '373 Patent.

101. At least as early as the service of this Complaint, ZTE has knowingly contributed to the infringement of the '373 Patent.

102. At least as early as the service of this Complaint, ZTE has willfully infringed the '373 Patent.

103. ZTE does not have a license or permission to use the claimed subject matter in the '373 Patent.

104. ZTE will continue to infringe the '373 Patent without a license unless otherwise ordered by this Court. As a result of ZTE's infringement of the '373 Patent, Evolved Wireless has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by ZTE, together with interest and costs as fixed by the Court.

**COUNT IV**

**INFRINGEMENT OF U.S. PATENT NO. 7,881,236**

105. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

106. ZTE has infringed, induced infringement, and/or contributed to infringement of the '236 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '236 Patent, including but not limited to cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, including at least TS 36.211, .300, .321, .331, and .423.

107. On information and belief, ZTE has actively induced and is actively inducing third parties, such as ZTE's customers, to directly infringe the '236 Patent in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(b). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '236 Patent. Moreover, ZTE specifically intends for and encourages its customers to use their products in violation of the '236 Patent. For example, by marketing and selling its cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, ZTE has encouraged and is encouraging its customers to use the products to directly infringe the '236 Patent.

108. Further, on information and belief, ZTE has also contributed to and is contributing to direct infringement of the '236 Patent by third parties, such as ZTE's customers,



in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(c). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '236 Patent. Moreover, because the '236 Patent is essential to the LTE standards, ZTE's cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards are material in practicing the '236 Patent, are especially made to infringe the '236 Patent, and have no substantial non-infringing uses.

109. ZTE's LTE devices that infringe the '236 Patent include, but are not limited to, at least the devices listed in Appendix A.

110. At least as early as the service of this Complaint, ZTE has notice of the '236 Patent and the infringement alleged herein.

111. At least as early as the service of this Complaint, ZTE has knowingly induced others to directly infringe the '236 Patent.

112. At least as early as the service of this Complaint, ZTE has knowingly contributed to the infringement of the '236 Patent.

113. At least as early as the service of this Complaint, ZTE has willfully infringed the '236 Patent.

114. ZTE does not have a license or permission to use the claimed subject matter in the '236 Patent.

115. ZTE will continue to infringe the '236 Patent without a license unless otherwise ordered by this Court. As a result of ZTE's infringement of the '236 Patent, Evolved Wireless

has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by ZTE, together with interest and costs as fixed by the Court.

**COUNT V**

**INFRINGEMENT OF U.S. PATENT NO. 8,218,481**

116. Evolved Wireless restates and realleges each of the allegations set forth above and incorporates them herein.

117. ZTE has infringed, induced infringement, and/or contributed to infringement of the '481 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '481 Patent, including but not limited to cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards, including at least TS 36.211, .300, .321, .331, and .423.

118. On information and belief, ZTE has actively induced and is actively inducing third parties, such as ZTE's customers, to directly infringe the '481 Patent in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(b). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '481 Patent. Moreover, ZTE specifically intends for and encourages its customers to use their products in violation of the '481 Patent. For example, by marketing and selling its cellular telephones and/or other devices with LTE capabilities and that

comply with the LTE standards, ZTE has encouraged and is encouraging its customers to use the products to directly infringe the '481 Patent.

119. Further, on information and belief, ZTE has also contributed to and is contributing to direct infringement of the '481 Patent by third parties, such as ZTE's customers, in this District and elsewhere in the United States in violation of 35 U.S.C. § 271(c). On information and belief, ZTE and/or its distributors or representatives have sold or otherwise provided cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards to third parties, such as ZTE's customers. ZTE's customers, on information and belief, have directly infringed and are directly infringing the '481 Patent. Moreover, because the '481 Patent is essential to the LTE standards, ZTE's cellular telephones and/or other devices with LTE capabilities and that comply with the LTE standards are material in practicing the '481 Patent, are especially made to infringe the '481 Patent, and have no substantial non-infringing uses.

120. ZTE's LTE devices that infringe the '481 Patent include, but are not limited to, at least the devices listed in Appendix A.

121. At least as early as the service of this Complaint, ZTE has notice of the '481 Patent and the infringement alleged herein.

122. At least as early as the service of this Complaint, ZTE has knowingly induced others to directly infringe the '481 Patent.

123. At least as early as the service of this Complaint, ZTE has knowingly contributed to the infringement of the '481 Patent.

124. At least as early as the service of this Complaint, ZTE has willfully infringed the '481 Patent.

125. ZTE does not have a license or permission to use the claimed subject matter in the '481 Patent.

126. ZTE will continue to infringe the '481 Patent without a license unless otherwise ordered by this Court. As a result of ZTE's infringement of the '481 Patent, Evolved Wireless has suffered damages and is entitled to monetary relief to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by ZTE, together with interest and costs as fixed by the Court.

### **DEMAND FOR TRIAL BY JURY**

Evolved Wireless demands a jury trial on all issues so triable, pursuant to Rule 38 of the Federal Rules of Civil Procedure.

### **PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiff Evolved Wireless prays for the following relief:

1. A declaration that ZTE has infringed and is infringing at least one claim in Evolved Wireless's LTE Patent Portfolio;
2. An order further entering a permanent injunction under 35 U.S.C. § 283 enjoining ZTE and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with it, from infringement of all claims in Evolved Wireless's LTE Patent Portfolio for which it is determined that ZTE has and/or does infringe;
3. If a permanent injunction is not granted, a judicial determination of the conditions for future infringement such as an ongoing royalty;
4. An award of damages, including costs, expenses, pre-judgment and post-judgment interest, in an amount adequate to compensate Evolved Wireless for ZTE's infringement of all

claims in Evolved Wireless's LTE Patent Portfolio for which it is determined that ZTE has and/or does infringe;

5. An equitable accounting of damages owed by ZTE for the period of infringement of Evolved Wireless's LTE Patent Portfolio, following the period of damages established by Evolved Wireless at trial;

6. An award of enhanced damages, including that the damages be trebled pursuant to 35 U.S.C. § 284, for ZTE's willful infringement of all claims in Evolved Wireless's LTE Patent Portfolio for which it is determined that ZTE has and/or does infringe;

7. A finding that this case is exceptional and an award of attorneys' fees pursuant to 35 U.S.C. § 285;

8. An award of costs, expenses, and disbursements; and

9. Such other and further relief that Evolved Wireless may be entitled to in law and equity.

Dated: June 25, 2015

Respectfully submitted,

*Of Counsel:*

Christopher K. Larus  
Andrea L. Gothing  
Ryan M. Schultz  
**Robins Kaplan LLP**  
800 LaSalle Avenue, Suite 2800  
Minneapolis, Minnesota 55402  
Telephone: (612) 349-8500  
Facsimile: (612) 339-4181  
clarus@robinskaplan.com  
agothing@robinskaplan.com  
rschultz@robinskaplan.com

FARNAN LLP

/s/ Brian E. Farnan  
Brian E. Farnan (Bar No. 4089)  
919 N. Market Street, 12th Floor  
Wilmington, Delaware 19801  
(302) 777-0300  
(302) 777-0301  
bfarnan@farnanlaw.com

**Counsel for Plaintiff Evolved Wireless, LLC**