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UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable E. James Gildea
Administrative Law Judge

In the Matter of

**CERTAIN WIRELESS COMMUNICATIONS
EQUIPMENT AND ARTICLES THEREIN**

Investigation No. 337-TA-866

**RESPONSE OF ERICSSON INC. AND TELEFONAKTIEBOLAGET LM ERICSSON
TO THE COMPLAINT OF SAMSUNG ELECTRONICS CO., LTD. AND SAMSUNG
TELECOMMUNICATIONS AMERICA, LLC UNDER SECTION 337 OF THE
TARIFF ACT OF 1930, AS AMENDED, AND NOTICE OF INVESTIGATION**

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RESPONSE TO SAMSUNG'S COMPLAINT

Pursuant to 19 C.F.R. § 210.13, Respondents Ericsson Inc. and Telefonaktiebolaget LM Ericsson (collectively "Ericsson") hereby respond to the December 21, 2012, Complaint of Samsung Electronics Co., Ltd. and Samsung Telecommunications America, LLC (collectively "Samsung") under Section 337 of the Tariff Act of 1930, as amended ("Complaint"), and also responds to the Notice of Investigation issued by the United States International Trade Commission (the "Commission") and published at 78 *Fed. Reg.* 6837 on January 31, 2013.

Ericsson is the world's largest supplier of telecommunications network equipment and related services to telecom operators. [REDACTED]

[REDACTED] Worldwide, more than forty percent of all mobile phone calls are made through Ericsson networks.

Ericsson holds over 27,000 patents.

Ericsson denies that it has engaged in any acts of unfair competition or violated Section 337 by importing, selling for importation, or selling within the United States after importation any articles that infringe any valid and enforceable claim of U.S. Patent No. 7,782,749 ("the '749 Patent"); U.S. Patent No. 8,165,081 ("the '081 Patent"); U.S. Patent No. 8,208,438 ("the '438 Patent"); U.S. Patent No. 8,228,827 ("the '827 Patent"); U.S. Patent No. 6,617,929 ("the '929 Patent"); U.S. Patent No. 6,767,813 ("the '813 Patent"); and U.S. Patent No. 6,865,682 ("the '682 Patent") (collectively the "Asserted Patents"), or otherwise. Ericsson denies that the Asserted Patents are valid, enforceable, and infringed. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of any of the Asserted Patents. Ericsson denies that a domestic industry as required by Section 337 exists or is in the process of being

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established. Ericsson denies that Samsung is entitled to any of the relief it seeks. Ericsson denies each and every allegation in the Complaint and Notice of Investigation except as specifically and expressly admitted herein. Any factual allegation admitted below is admitted only as to the specific admitted facts, and not as to any purported conclusions, characterizations, implications, or speculations that might follow from the admitted facts.

In response to the specific allegations set forth in the Complaint, Ericsson, on personal knowledge, responds as follows:

I. INTRODUCTION¹

1. Ericsson admits that the Complaint was filed by Samsung purportedly pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 (“Section 337”) and that the Complaint alleges “unlawful importation into the United States, the sale for importation into the United States, and the sale within the United States after importation, by [Ericsson] of certain wireless communications equipment, and articles therein.” Ericsson denies that it has committed any of the unlawful acts alleged in Paragraph 1 and denies that it has otherwise violated Section 337 in any manner. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of any of the Asserted Patents. Ericsson further denies that it has infringed literally and by equivalents any claim of the Asserted Patents. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 1.

2. To the extent use of the words “innovative” and “world-recognized” is intended to suggest that the Asserted Patents are valid, Ericsson denies that allegation. To the

¹ Ericsson utilizes the headings provided by Samsung in its Complaint solely for ease of reference. Ericsson does not admit to allegations, if any, contained in Samsung’s headings and, to the extent Samsung’s headings contain or imply any factual allegations, Ericsson denies all such allegations.

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extent Complaint ¶ 2 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 2, and denies them accordingly.

3. Ericsson admits that Ericsson Inc. and Telefonaktiebolaget LM Ericsson have been named as respondents in this investigation. Ericsson admits that it is the world's largest supplier of telecommunications network equipment and related services to telecom operators. To the extent Complaint ¶ 3 is intended to suggest that Ericsson imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent, that Ericsson otherwise violates Section 337, that Samsung has standing to assert any Asserted Patent, or that any Asserted Patent is valid and enforceable, Ericsson denies those allegations. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 3, and denies them accordingly.

4. Ericsson admits that the Complaint attaches what purport to be certified copies of the Asserted Patents and certified copies of the assignment records for the Asserted Patents. Ericsson admits that the Complaint attaches what purports to be a list of foreign counterparts to the Asserted Patents. Ericsson denies that Samsung owns all rights, title, and interest in each of the Asserted Patents. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 4, and denies them accordingly.

5. To the extent paragraph 5 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 5.

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6. Ericsson admits that the Complaint asks the Commission for a certain limited exclusion order and cease and desist order. Ericsson denies that Samsung is entitled to any form of relief and/or remedy against Ericsson, either by limited exclusion order, cease and desist order, or otherwise. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 6.

II. COMPLAINANTS

7. To the extent paragraph 7 of the Complaint is intended to suggest that any complainant in this investigation owns all rights, title, and interest to, or has standing to assert, the Asserted Patents, Ericsson denies that allegation. Otherwise, Ericsson is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 7 of the Complaint, and denies them accordingly.

8. Ericsson is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 8 of the Complaint, and denies them accordingly.

9. Ericsson admits that the Complaint attaches what purports to be a 2011 Annual Report. To the extent use of the word “innovative” in paragraph 9 is intended to suggest that the Asserted Patents are valid, Ericsson denies that allegation. To the extent Complaint ¶ 9 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 9, and denies them accordingly.

10. To the extent paragraph 10 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 10. To the extent Complaint ¶ 10 is intended to suggest that a domestic industry exists or is in

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the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 10, and denies them accordingly.

11. To the extent paragraph 11 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 11. To the extent Complaint ¶ 11 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 11, and denies them accordingly.

12. Ericsson admits that the Complaint attaches what purport to be certified assignment records. To the extent paragraph 12 of the Complaint is intended to suggest that any complainant in this investigation owns all rights, title, and interest to, or has standing to assert, the Asserted Patents, Ericsson denies that allegation. To the extent Complaint ¶ 12 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 12, and denies them accordingly.

13. To the extent paragraph 13 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 13. To the extent Complaint ¶ 13 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 13, and denies them accordingly.

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III. THE RESPONDENTS

14. Ericsson admits that Ericsson Inc. is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at 6300 Legacy Drive, Plano, Texas 75024. Ericsson states that Telefonaktiebolaget LM Ericsson wholly owns its subsidiary Ericsson Holding II Inc., a Delaware corporation, which in turn wholly owns Ericsson Inc. To the extent Complaint ¶ 14 is intended to suggest that Ericsson Inc. imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent, or that Ericsson otherwise violates Section 337, Ericsson denies those allegations. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 14.

15. Ericsson admits that Telefonaktiebolaget LM Ericsson is a corporation organized and existing under the laws of Sweden, having its principal place of business at Torshamsgatan 23, Kista, 164 83 Stockholm Sweden. To the extent Complaint ¶ 15 is intended to suggest that Telefonaktiebolaget LM Ericsson imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent, or that Ericsson otherwise violates Section 337, Ericsson denies those allegations. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 15.

16. To the extent Complaint ¶ 16 is intended to suggest that Ericsson imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent, or that Ericsson otherwise violates Section 337, Ericsson denies those allegations. Otherwise, Ericsson denies each and every allegation contained in the Complaint ¶ 16.

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IV. THE TECHNOLOGY AND PRODUCTS AT ISSUE

17. Ericsson denies that all of the technologies at issue relate to wireless communications base stations. Doherty amplifiers, semiconductors, and microprocessor modules all existed before wireless communications base stations. Ericsson admits that there are some wireless carriers that use base stations as part of their wireless networks. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 17.

18. To the extent Complaint ¶ 18 is intended to suggest that Ericsson imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent, or that Ericsson otherwise violates Section 337, Ericsson denies those allegations. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 18, and denies them accordingly.

V. THE PATENTS IN SUIT AND NONTECHNICAL DESCRIPTIONS OF THE INVENTIONS

19. Ericsson admits that the Complaint attaches what purport to be certified assignment records. To the extent paragraph 19 of the Complaint is intended to suggest that any complainant in this investigation owns all rights, title, and interest to, or has standing to assert, the Asserted Patents, Ericsson denies that allegation. To the extent not specifically and expressly admitted, Ericsson denies each and every allegation contained in the Complaint ¶ 19.

20. Ericsson admits that the Complaint attaches what purport to be certified copies of the prosecution histories of the Asserted Patents and cited references for the Asserted Patents. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 20, and denies them accordingly.

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A. Nontechnical Description of the '749 Patent

21. Ericsson admits that the first page of the '749 Patent lists an issue date of August 24, 2010, lists Jae-Chon Yu, Hwan-Joon Kwon, Dong-Hee Kim, and Yeon-Ju Lim as inventors, and reflects a title of “Method for Mapping Physical Downlink Control Channel to Resources and Apparatus for Transmitting/Receiving the Mapped Physical Downlink Control Channel in a Wireless Communication System.” Ericsson also admits that the first page of the '749 Patent lists a patent application number of 12/053,155, a filing date of March 21, 2008, and lists Korean application 10-2007-0027753 with a corresponding date of March 21, 2007 and Korean application 10-2007-0036198 with a corresponding date of April 12, 2007 as “Foreign Application Priority Data.” Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 21, and denies them accordingly.

22. Ericsson admits that the '749 Patent lists 14 claims, 6 which are independent and 8 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the '749 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 22.

23. Ericsson admits that the '749 Patent references the terms “physical downlink control channel,” “interference diversity,” “concatenate,” “interleave,” and “map.” Otherwise, Ericsson denies the allegations in Complaint ¶ 23.

B. Nontechnical Description of the '081 Patent

24. Ericsson admits that the first page of the '081 Patent lists an issue date of Apr. 24, 2012, lists Aris Papasakeliariou and Joon-Young Cho as inventors, and reflects a title of “Control and Data Multiplexing in Communication Systems.” Ericsson admits that the first page of the '081 Patent lists an application number of 12/365,608, a filing date of Feb. 4, 2009, and a

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prior publication data of “US2009/0232101 A1 Sep. 17, 2009.” Ericsson admits that the ’081 Patent claims priority to U.S. Provisional Application 61/025,925. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 24, and denies them accordingly.

25. Ericsson admits that the ’081 Patent lists 16 claims, 8 of which are independent and 8 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the ’081 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 25.

26. Ericsson admits that the ’081 Patent mentions method and apparatus for control and data multiplexing in communication systems. Otherwise, Ericsson denies the allegations in Complaint ¶ 26.

C. Nontechnical Description of the ’438 Patent

27. Ericsson admits that the first page of the ’438 Patent lists an issue date of June 26, 2012, lists Jin-Kyu Han, Ju-Ho Lee, Hwan-Joon Kwon, Young-Bum Kim, Byung-Sik Kim, and Hyoung-Ju Ji as inventors, and reflects a title of "Method and Apparatus for Allocating Resources of a Control Channel in a Mobile Communication System using Orthogonal Frequency Division Multiplexing.” Ericsson also admits that the first page of the ’438 Patent lists a patent application number of 12/244,445, a filing date of October 2, 2008, and lists Korean application 10-2007-0099537 with a corresponding date of October 2, 2007, Korean application 10-2007-0118847 with a corresponding date of November 20, 2007, and Korean application 10-2008-0000400 with a corresponding date of January 2, 2008 as “Foreign Application Priority Data.” Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 27, and denies them accordingly.

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28. Ericsson admits that the '438 Patent lists 28 claims, 4 which are independent and 24 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the '438 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 28.

29. Ericsson admits that the '438 Patent references the terms “physical downlink control channel,” and “mapping.” Otherwise, Ericsson denies the allegations in Complaint ¶ 29.

D. Nontechnical Description of the '827 Patent

30. Ericsson admits that the first page of the '827 Patent lists an issue date of July 24, 2012, lists Kyeong-In Jeong, Gert Jan Van Lieshout, Himke Van Der Velde, and Soeng-Hun Kim as inventors, and reflects a title of “Method and Apparatus for Detecting Contention During Random Access Procedure in a Mobile Communication System.” Ericsson admits that the first page of the '827 Patent lists an application number of 12/028,508, a filing date of February 8, 2008, and a prior publication data of “US 2008/0194243 A1 August 14,2008.” Ericsson admits that the first page of the '827 Patent lists (KR) 10-2007-0014024 alongside a date of February 9, 2007 under foreign application priority data. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 30, and denies them accordingly.

31. Ericsson admits that the '827 Patent lists 14 claims, 4 of which are independent and 10 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the '827 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 31.

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32. Ericsson admits that the '827 Patent mentions a method and apparatus for performing a random access procedure in a mobile communication system. Otherwise, Ericsson denies the allegations in Complaint ¶ 32.

E. Nontechnical Description of the '929 Patent

33. Ericsson admits that the first page of the '929 Patent lists an issue date of Sep. 9, 2003, lists Bumman Kim, Youngoo Yang, Jaehyok Yi, and Young Yun Woo as inventors, and reflects a title of "Full Output Matching Apparatus of a Microwave Doherty Amplifier." Ericsson admits that the first page of the '929 Patent lists an application number of 10/076,636, a filing date of Feb. 19, 2002, and a prior publication data of "US 2002/0135425 A1 Sep. 26, 2002." Ericsson admits that the first page of the '929 Patent lists (KR) 2001-14516 alongside a date of Mar. 21, 2001 under foreign application priority data. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 33, and denies them accordingly.

34. Ericsson admits that the '929 Patent lists 8 claims, 2 of which are independent and 6 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the '929 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 34.

35. Ericsson admits that the '929 Patent mentions a Doherty amplifier and that a Doherty amplifier is a well-known amplifier. Otherwise, Ericsson denies the allegations in Complaint ¶ 35.

F. Nontechnical Description of the '813 Patent

36. Ericsson admits that the first page of the '813 Patent lists an issue date of July 27, 2004, lists Kang-yoon Lee and Jong-woo Park as inventors, and reflects a title of "Integrated

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Circuit Devices Having Active Regions With Expanded Effective Widths and Methods of Manufacturing Same.” Ericsson admits that the first page of the ’813 Patent lists an application number of 10/057,745, a filing date of Oct. 26, 2001, and a prior publication data of “US 2002/0109182 A1 Aug. 15, 2002.” Ericsson admits that the first page of the ’813 Patent lists (KR) 2000-63711 alongside a date of Oct. 28, 2000 under foreign application priority data. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 36, and denies them accordingly.

37. Ericsson admits that the ’813 Patent lists 24 claims, 4 of which are independent and 20 of which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the ’813 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 37.

38. Ericsson admits that the ’813 Patent mentions integrated circuit device having active regions with expanded effective widths. Otherwise, Ericsson denies the allegations in Complaint ¶ 38.

G. Nontechnical Description of the ’682 Patent

39. Ericsson admits that the first page of the ’682 Patent lists an issue date of Mar. 8, 2005, lists Gerald Talbot, and Hanwoo Cho as inventors, and reflects a title of “Microprocessor Module with Integrated Voltage Regulators.” Ericsson admits that the first page of the ’682 Patent lists an application number of 09/335,940, a filing date of Jun. 18, 1999, and does not list a prior publication data field. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 39, and denies them accordingly.

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40. Ericsson admits that the '628 Patent lists 9 claims, 1 which is independent and 8 which are dependent. Ericsson admits that the Complaint purports to allege that certain claims of the '628 Patent are infringed, but Ericsson denies any such infringement. Otherwise, Ericsson denies the allegations in Complaint ¶ 40.

41. Ericsson admits that the '628 Patent mentions a microprocessor and voltage regulator. Otherwise, Ericsson denies the allegations in Complaint ¶ 41.

H. Foreign Counterparts

42. Ericsson admits that the Complaint attaches what purports to be a list of foreign counterparts to the Asserted Patents. Ericsson denies that Samsung owns all rights, title, and interest in each of the Asserted Patents and to each foreign counterpart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 42, and denies them accordingly.

I. Licenses

43. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Otherwise, Ericsson denies the allegations in Complaint ¶ 43.

VI. UNLAWFUL AND UNFAIR ACTS OF RESPONDENT — PATENT INFRINGEMENT

44. Denied. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of any of the Asserted Patents.

45. Paragraph 45 of the Complaint does not appear to contain any allegations. To the extent it does, Ericsson denies the allegations in Complaint ¶ 45.

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A. Infringement of the ‘749 Patent

46. Denied.

47. Denied.

48. Denied.

49. Denied.

50. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the ‘749 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶ 50.

B. Infringement of the ‘081 Patent

51. Denied.

52. Denied.

53. Denied.

54. Denied.

55. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the ‘081 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶ 55.

C. Infringement of the ‘438 Patent

56. Denied.

57. Denied.

58. Denied

59. Denied.

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60. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the '438 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶¶ 60.

D. Infringement of the '827 Patent

61. Denied.

62. Denied.

63. Denied.

64. Denied.

65. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the '827 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶¶ 65.

E. Infringement of the '929 Patent

66. Denied.

67. Denied.

68. Ericsson admits that the Complaint mentions the '929 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶¶ 68.

69. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the '929 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶¶ 69.

F. Infringement of the '813 Patent

70. Denied.

71. Denied.

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72. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the '813 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶ 72.

G. Infringement of the '682 Patent

73. Denied.

74. Denied.

75. Ericsson admits that the Complaint mentions the '682 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶ 75.

76. Ericsson admits that the Complaint attaches what purport to be exemplary claim charts. Ericsson denies that Samsung will be able to satisfy its burden to demonstrate infringement of the '682 Patent. Otherwise, Ericsson denies the allegations in Complaint ¶ 76.

VII. SPECIFIC INSTANCES OF UNFAIR IMPORTATION AND SALE

77. Denied.

78. [REDACTED]

[REDACTED] Ericsson further states that its Annual Reports speaks for themselves. [REDACTED]

[REDACTED] Ericsson denies that it imports, sells for importation, or sells within the United States after importation any articles that infringe any Asserted Patent. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 78, and denies them accordingly.

VIII. HARMONIZED TARIFF SCHEDULE ITEM NUMBERS

79. Ericsson admits that Complaint ¶ 79 refers to an Exhibit 45 and that Exhibit 45 attaches what purport to be certain Harmonized Tariff Schedule of the United States codes.

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Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 79, and denies them accordingly.

IX. RELATED LITIGATION

80. [REDACTED]

[REDACTED] Ericsson admits that it and Samsung were previously involved in litigation in both the ITC and in federal District Court. Ericsson admits that it was a respondent in 337-TA-577 and that that investigation terminated on August 29, 2007. Ericsson admits that it was complainant in 337-TA-583, captioned *Certain Wireless Communication Equipment, Components Thereof, and Products Containing the Same*, and that that investigation terminated on August 22, 2007. Otherwise, Ericsson denies the allegations in Complaint ¶ 80.

81. Ericsson admits that it filed a complaint with the Commission on November 30, 2012, which has been given investigation number 337-TA-862, and that amongst the respondents named in that complaint were Samsung. Ericsson states that on November 27, 2012, it filed two lawsuits in federal District Court against Samsung.

82. Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 82, and denies them accordingly.

X. THE DOMESTIC INDUSTRY

83. To the extent paragraph 83 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 83.

84. To the extent Complaint ¶ 84 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise,

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Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 84, and denies them accordingly.

85. To the extent Complaint ¶ 85 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 85, and denies them accordingly.

A. United States Investments in the Domestic Industry

86. Ericsson denies that Samsung is a leading LTE infrastructure provider in the United States. To the extent Complaint ¶ 86 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 86, and denies them accordingly.

87. Ericsson admits that Samsung provides mobile phones in the United States. To the extent Complaint ¶ 87 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 87, and denies them accordingly.

88. To the extent Complaint ¶ 88 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 88, and denies them accordingly.

89. To the extent Complaint ¶ 89 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise,

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Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 89, and denies them accordingly.

90. To the extent Complaint ¶ 90 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 90, and denies them accordingly.

91. To the extent paragraph 91 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 91. To the extent Complaint ¶ 91 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 91, and denies them accordingly.

92. Ericsson admits that Samsung Telecommunications America, LLC, has its principal place of business in Richardson, Texas. To the extent paragraph 92 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 92. To the extent Complaint ¶ 92 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 92, and denies them accordingly.

93. To the extent paragraph 93 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 93. To the extent Complaint ¶ 93 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks

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knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 93, and denies them accordingly.

94. To the extent paragraph 94 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 94.

95. Ericsson admits that Samsung has business relationships with MetroPCS and with Sprint. To the extent Complaint ¶ 95 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 95, and denies them accordingly.

96. To the extent paragraph 96 contains conclusions of law, no response is necessary. To the extent a response is necessary, Ericsson denies the allegations in Complaint ¶ 96. To the extent Complaint ¶ 96 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 96, and denies them accordingly.

97. To the extent Complaint ¶ 97 is intended to suggest that a domestic industry exists or is in the process of being established, Ericsson denies that allegation. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 97, and denies them accordingly.

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B. Samsung's Practice of the Asserted Patents

98. Ericsson admits that the Complaint attaches two exhibits that purport to be declarations. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 98, and denies them accordingly.

99. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 99, and denies them accordingly.

100. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 100, and denies them accordingly.

101. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 101, and denies them accordingly.

102. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 102, and denies them accordingly.

103. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 103, and denies them accordingly.

104. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 104, and denies them accordingly.

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105. Ericsson admits that the Complaint attaches what purports to be an exemplary claim chart. Otherwise, Ericsson lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Complaint ¶ 105, and denies them accordingly.

XI. RELIEF REQUESTED

106. To the extent any response to paragraph 106 of the Complaint is required, Ericsson denies that Samsung has any valid claim pursuant to Section 337 of the Tariff Act of 1930, as amended. Ericsson denies that it has violated Section 337 and denies all of Samsung's allegations of infringement and domestic industry. Ericsson denies that any asserted claim of the Asserted Patents is valid and enforceable. Ericsson denies that Samsung is entitled to any relief whatsoever, including without limitation the relief requested in Complaint ¶ 106, including all subparts thereof.

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RESPONSE TO THE NOTICE OF INVESTIGATION

Without admitting any of the specific or general allegations set forth in Samsung's Complaint as referenced in the Notice of Investigation, Ericsson provides the following response to the Notice of Investigation.

Ericsson admits that a Complaint was filed on behalf of Samsung with the Commission on December 21, 2012, pursuant to Section 337. Ericsson admits that the Complaint alleges certain violations of Section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain wireless communications equipment and articles therein, be reason of Ericsson's supposed and alleged infringement of U.S. Patent No. 7,782,749 ("the '749 Patent"); U.S. Patent No. 8,165,081 ("the '081 Patent"); U.S. Patent No. 8,208,438 ("the '438 Patent"); U.S. Patent No. 8,228,827 ("the '827 Patent"); U.S. Patent No. 6,617,929 ("the '929 Patent"); U.S. Patent No. 6,767,813 ("the '813 Patent"); and U.S. Patent No. 6,865,682 ("the '682 Patent") (collectively the "Asserted Patents"). Ericsson admits that the Complaint alleges that an industry in the United States exists pursuant to Section 337. Ericsson admits that Samsung requested that the Commission institute an investigation and, after the investigation, issue an exclusion order and cease and desist order. Ericsson admits that the Commission instituted an investigation as set forth in the Notice of Investigation published at 78 *Fed. Reg.* 6837 on January 31, 2013.

Ericsson denies that it has engaged in any acts of unfair competition or violated Section 337 by importing, selling for importation, or selling within the United States after importation any articles that infringe any valid and enforceable claim of the Asserted Patents, or otherwise. Ericsson denies all of Samsung's allegations of infringement and domestic industry. Ericsson

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denies that any asserted claim of the Asserted Patents is valid and enforceable. Ericsson denies that Samsung is entitled to any relief whatsoever. Except as expressly admitted, Ericsson denies the allegations in the Notice of Investigation.

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ERICSSON'S STATEMENT UNDER 19 C.F.R. § 210.13(b)

Pursuant to Commission Rule 210.13(b), Ericsson provides the following information with the sole intention of supplying statistical and other data required by that Rule. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]
------------	------------	------------

2. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4. Pursuant to 19 C.F.R. 210.13(c), Ericsson states that given the size of the accused base stations, it is not practicable to submit an accused article herewith.

ERICSSON'S AFFIRMATIVE DEFENSES

1. Ericsson asserts the following defenses in response to the allegations in the Complaint. Ericsson's inclusion of these defenses is not a concession that Ericsson bears the burden proof with respect to any of these defenses. Ericsson reserves the right to supplement, modify, and/or amend these defenses and to take further positions as discovery proceeds.

FIRST AFFIRMATIVE DEFENSE -- NON-INFRINGEMENT

2. Ericsson has not directly infringed, indirectly infringed, contributed to or induced infringement of any valid or enforceable claim of any of the Asserted Patents, and has not otherwise committed any acts in violation of 35 U.S.C. § 271 and/or 19 U.S.C. § 1337.

3. Samsung has not met its burden of proof to show infringement of any of the Asserted Patents in its Complaint and will be unable to meet its burden of proof to show infringement of any of the Asserted Patents.

4. Ericsson has not (i) directly infringed, either literally or under the doctrine of equivalents, any valid and enforceable claim of the Asserted Patents; (ii) contributed to the infringement by others, either literally or under the doctrine of equivalents, of any valid and enforceable claim of the Asserted Patents; (iii) induced the infringement, either literally or under the doctrine of equivalents, of any valid and enforceable claim of the Asserted Patents.

5. The asserted claims of the Asserted Patents are not entitled to any construction that would cover any product made, used, sold, offered for sale, or imported into the United States by Ericsson. Ericsson does not infringe any of the Asserted Patents, either directly or indirectly, literally or by equivalents, at least because the accused products do not meet every

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limitation of any of the asserted claims, the asserted claims are invalid or unenforceable, and/or Ericsson has certain rights arising from various doctrines, including unclean hands and estoppel.

A. Non-Infringement of the '749 Patent

6. Samsung has not met its burden of proof to show infringement of the '749 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '749 Patent.

7. The Accused Products do not infringe the '749 Patent as they do not meet all of the claim limitations of any of the claims of the '749 Patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8. In addition, Ericsson does not infringe the '749 Patent because Ericsson does not practice any of the methods claimed in the '749 Patent in the United States.

B. Non-Infringement of the '081 Patent

9. Samsung has not met its burden of proof to show infringement of the '081 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '081 Patent.

10. The Accused Products do not infringe the '081 Patent as they do not meet all of the claim limitations of any of the claims of the '081 Patent. [REDACTED]

[REDACTED]

11. In addition, Ericsson does not infringe the '081 Patent because Ericsson does not practice any of the methods claimed in the '081 Patent in the United States.

C. Non-Infringement of the '438 Patent

12. Samsung has not met its burden of proof to show infringement of the '438 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '438 Patent.

13. The Accused Products do not infringe the '438 Patent as they do not meet all of the claim limitations of any of the claims of the '438 Patent. [REDACTED]

[REDACTED]

14. In addition, Ericsson does not infringe the '438 patent because Ericsson does not practice any of the methods claimed in the '438 patent in the United States.

D. Non-Infringement of the '827 Patent

15. Samsung has not met its burden of proof to show infringement of the '827 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '827 Patent.

16. The Accused Products do not infringe the '827 Patent as they do not meet all of the claim limitations of any of the claims of the '827 Patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

17. In addition, Ericsson does not infringe the '827 Patent because Ericsson does not practice any of the methods claimed in the '827 Patent in the United States.

E. Non-Infringement of the '929 Patent

18. Samsung has not met its burden of proof to show infringement of the '929 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '929 Patent.

19. The Accused Products do not infringe the '929 Patent as they do not meet all of the claim limitations, both literally and under the doctrine of equivalents, of any of the asserted claims of the '929 Patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

F. Non-Infringement of the '813 Patent

20. Samsung has not met its burden of proof to show infringement of the '813 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '813 Patent.

21. The Accused Products do not infringe the '813 Patent as they do not meet all of the claim limitations, both literally and under the doctrine of equivalents, of any of the asserted claims of the '813 Patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

22. In addition, Ericsson does not infringe the '813 Patent because Ericsson does not practice any of the methods claimed in the '813 Patent in the United States.

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G. Non-Infringement of the '682 Patent

23. Samsung has not met its burden of proof to show infringement of the '682 Patent in its Complaint and will be unable to meet its burden of proof to show infringement of the '682 Patent.

24. The Accused Products do not infringe the '682 Patent as they do not meet all of the claim limitations, both literally and under the doctrine of equivalents, of any of the asserted claims of the '682 Patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

SECOND AFFIRMATIVE DEFENSE -- INVALIDITY

25. The asserted claims of the Asserted Patents are invalid for failure to comply with the requirements of 35 U.S.C. §§ 101 *et seq.*, including, but not limited to, sections 101, 102, 103, 112, 116, and/or 256, and of any other applicable statutory provision or judicially created doctrines of invalidity, including, but not limited to, obviousness-type double patenting or the Rules and Regulations of the United States Patent & Trademark Office relating thereto.

26. The asserted claims of the Asserted Patents are invalid under 35 U.S.C. § 112, first and second paragraph, for lack of written description, lack of enablement, and indefiniteness.

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27. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the term “sidewall” as used in the context of the ’813 Patent has no clear and consistent meaning to one of skill in the art, nor does the patentee specifically define the term.

28. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the asserted claims of the ’081 Patent are invalid for lack of enablement and lack of written description in connection with at least the “wherein” clause in the context of the ’081 Patent.

29. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the ’929 Patent does not adequately describe how to create a load matching circuit or phase tuning component. Furthermore, at least the claim terms “load matching circuit,” “phase tuning component,” and “adjusting the phase of a [first/second] equivalent circuit” are indefinite.

30. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the ’682 Patent does not describe the electronic communication occurring between various claimed components. Furthermore, at least the claim terms “processor module,” “motherboard,” “support electronics,” and “fixed voltage level” are indefinite.

31. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the ’749 Patent does not adequately describe or enable “a CE-to-Resource (RE) mapper,” “mapping, by a CE-to-Resource Element (RE) mapper,” “interleaving, by an interleaver, the concatenated elements,” “an interleaver for interleaving symbols,” “interleaving, by an interleaver, the modulation symbols,” “an interleaver for interleaving the modulation symbols,” “mapping ... the interleaved elements...,” and “mapping ... the interleaved ... symbols...” as claimed in the ’749 Patent. Furthermore, at least the claim terms “a CE-to-Resource (RE) mapper,” “elements,” “allocating,” and “mapping” are indefinite.

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32. Ericsson incorporates paragraph 26 immediately above as if set forth herein. For example, the '438 Patent does not adequately describe or enable “each RE group has a single time index,” dividing “the available resources . . . into a two-dimensional frequency/time structure,” “the plurality of RE groups are allocated to available resources in the downlink control channel in a time first manner,” “allocating a plurality of Resource Element (RE) groups to available resources in the downlink control channel in a time first manner,” and “wherein, during allocation, a time index is increased from an initial value up to a predetermined value in a given frequency index, before increasing to a next frequency index and resetting the time index to the initial value”. Furthermore, at least the claim terms “two-dimensional frequency/time structure,” “time index / single time index,” “allocating,” and “mapping” are indefinite.

33. With respect to each Asserted Patent, Ericsson provides an identification of prior art that support this additional defense. The prior art listed below is exemplary only and should not be construed as limiting in any way the defenses that Ericsson will present in this Investigation. Ericsson’s investigation is ongoing. Further, nothing herein should be construed as an admission that Ericsson agrees with any Samsung proposed claim construction.

A. Prior Art With Respect to the ‘749 Patent

- R1-063325, “Basic Multiplexing Schemes of Multiple L1/L2 Control Information in E-UTRA Downlink,” 3GPP TSG RAN WG1 Meeting #47, Riga, Latvia, November 6 – 10, 2006
- R1-070104, “Downlink L1/L2 Control Signaling Channel Structure: Mapping,” 3GPP TSG RAN WG Meeting #47bis, Sorrento, Italy, January 15 – 19, 2007
- R1-070516 (R1-070885), “L1/L2 Control Channel Structure with CDM Based Multiplexing in E-UTRA Downlink,” 3GPP TSG RAN WG1 Meeting #48, February 12 – 16, 2007
- R1-070737, “Multiplexing of L1/L2 Control Channels in E-UTRA Downlink,” 3GPP TSG RAN WG1#48, Saint Louis, USA, 12 – 16 February, 2007

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- R1-070930, “Downlink L1/L2 Control Signaling: Multiplexing, Configuration and Logical Receiver Model,” 3GPP TSG-RAN WG1 Meeting #48, St. Louis, USA, 12 – 16 February 2007
- R1-071105, “E-UTRA Downlink L1/L2 control channel Mapping,” 3GPP TSG-RAN-WG1 Meeting #48, St. Louis, USA, Feb 12th – Feb 16th 2007
- R1-071490, “Multiplexing PDCCH Grants in E-UTRA Downlink,” 3GPP TSG RAN WG1#48 bis, St. Julian, Malta, March 26 – 30, 2007
- R1-071689, “E-UTRA Downlink L1/L2 Control Channel Structure,” Huawei, Malta, March 2007
- R1-071223, “Way Forward on Downlink Control Signalling”, Ericsson, Qualcomm, Nokia, TI, NTT DoCoMo, Motorola, Panasonic, Siemens, Samsung, Nortel, ZTE, LGE, Huawei, Alcatel-Lucent, Freescale, St Louis USA, 12.-16. Feb. 2007.
- R1-071490, “Multiplexing PDCCH Grants in E-UTRA Downlink,” 3GPP TSG RAN WG1#48 bis, St. Julian, Malta, March 26 – 30, 2007
- R1-071820, “DL Control Channel Structure”, Ericsson, et al. 3GPP TSG RAN1 #48bis, St. Julians, Malta, March 20-26, 2007.
- Email chain on 3GPP email reflector dated March 21, 2007 entitled “[LTE Control Signaling] Control channel structure”
- R1-072097, “E-UTRA Downlink CCE to RE mapping scheme,” Huawei, Kobe, May 2007
- R1-072345, “Mapping of control channel elements to resource elements” LGE, May 2007
- R1-072382, “The resource element mapping of the control channel elements,” 3GPP TSG RAN WG1 meeting #49, May 7th – 11th, 2007, Kobe, Japan.
- R1-072470, CCE to RE mapping, Ericsson, RAN1#49, Kobe, May 2007
- R1-072606, “Mapping of Control Channel Elements to Resource Elements,” 3GPP TSG RAN WG1 Meeting #49, Kobe, Japan, May 7 – 11, 2007
- R1-072612, “Way forward on CCE to RE mapping,” Ericsson, Motorola, Samsung, Nokia, Nokia-Siemens Networks, Mitsubishi, Alcatel-Lucent, Texas Instruments, Nortel, NTT DoCoMo, Huawei, Qualcomm, Panasonic, LG Electronics, Kobe, May 2007.

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- R1-072613, “Way forward on CCE to RE mapping,” Ericsson, Motorola, Samsung, Nokia, Nokia-Siemens Networks, Mitsubishi, Alcatel-Lucent, Texas Instruments, Nortel, NTT DoCoMo, Huawei, Qualcomm, Panasonic, LG Electronics, Kobe, May 2007.
- R1-073510, “CCE to RE interleaver design criteria,” TSG RAN WG1 meeting #50, Athens, Greece, Aug 20-24, 2007
- R1-074370, “CCE-to-RE Mapping,” TSG-RAN WG1 #50bis, Shanghai, China, Oct. 8 – 12, 2007.
- 3GPP TR 25.814 V7.1.0, “Physical layer aspects for evolved Universal Terrestrial Radio Access (UTRA)” (2006-09)
- 3GPP TS 25.212, “Multiplexing and Channel Coding” Section 4.2.7., v.6.10.0 (2006-12).
- 3GPP 36.211, “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Channels and Modulation (Release 8) v 0.3.1” (2007-02).
- 3GPP 36.211, “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Channels and Modulation (Release 8) v 1.0.0” (2007-03).
- 3GPP TS 36.212, “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Multiplexing and channel coding (Release 8) v 1.0.0” (2007-03).
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- Mehrtash, A.; Boghrati, B.; Hojjat, N.; Safavi-Naeini, S., “Improving the Performance of Post-FFT Array Processing in OFDM Systems with Short Training Sequences,” Antennas and Propagation Society International Symposium 2006, IEEE.
- Benedetto, S. ; Divsalar, D. ; Montorsi, G. ; Pollara, F., “Serial concatenation of interleaved codes: performance analysis, design, and iterative decoding,” Information Theory, IEEE Transactions, Volume: 44, Issue: 3.
- Stuber, G.L. ; Barry, J.R. ; McLaughlin, S.W. ; Ye Li ; Ingram, M.A. ; Pratt, T.G. , “Broadband MIMO-OFDM wireless communications,” Proceedings of the IEEE (Feb. 2004).

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- Saajed Ali;” Concatenation of Space-Time Block Codes with Convolutional Codes,” Thesis submitted to the Faculty of the Virginia Polytechnic Institute and State University (Feb. 2004)
- Luis Zarzo Fuertes, “OFDM PHY Layer Implementation based on the 802.11a Standard and System,” Bachelor Thesis in Electronic Systems at Linköping University Institute of Technology (2005-03-22).
- JP2006-510315A, “Apparatus and method for signal constitution for downlink of OFDMA-based cellular system,” (6/2/2006).
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- JP2006-325264A, “Base Station Device And Radio Communication Method,” Nishio Akihiko (08/24/2006).
- KR0507519B, “Method And Apparatus For Constructing Signal To Down Link Of Cellular System Based On OFDMA,” Jang, Gyeong Hui (12/13/2002)
- KR2007-0022143A, “Service Dependent Shared Physical Channel Mapping,” Wengerter Christian (1/8/2007)
- KR0684305B, “A method for allocating radio resource in wireless system and apparatus thereof,” Cho, Jae Hee (2004-04-21).
- KR0589680B, “Sending Method And Sending Apparatus, Receiving Method and Receiving Apparatus For Signal Of Mobile Telecommunication System,” Lim, Kwang Jae (7/26/2004).
- KR2005-0110641A, “Components And Methods For Processing Wireless Communication Data In Presence Of Format Uncertainty,” Reznik Alexander (8/25/2005).
- KR2003-0074771A, “Coding Scheme For A Wireless Communication System,” Ling F (7/31/2003).
- KR2006-0063712A, “Apparatus And Method For Transmitting/Receiving Packet Data Symbol In Mobile Communication System,” Han, Jin Kyu (12/2/2005).
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- Ohrtman, F., “WiMAX Handbook: Building 802.16 Networks” (McGraw-Hill Communications) (May 2005)
- US Patent No. 7480279
- US Patent No. 7512076
- US Patent No. 7180953
- US Patent No. 7376076
- US Patent No. 7546511
- US Patent No. 7639817
- US Patent No. 7349373
- US Patent No. 7512076
- US Patent No. 7555069
- US Patent No. 7302008
- US Patent No. 7471622
- US Patent No. 7746758
- US Patent No. 7869402
- US Patent No. 8064394
- US Patent No. 8238475
- US Patent Application No. 20070104150
- US Patent Application No. 20080159323
- US Patent Application No. 20080282131
- US Patent Application No. 20090122736
- US Patent Application No. 20090161618

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B. Prior Art With Respect to the '081 Patent

- Korean Patent Application Publication No. 1020040064865; (Samsung) Device for Transmitting Reverse Rate Control Information in Mobile Communication System and Method Therefor
- Korean Patent Application Publication No. 1020040050756; (Electronics and Telecommunications Research Institute) Method for Determining Adaptive Modulation Coding Option of High-Speed IMT-2000 and Computer Readable Medium Storing Thereof
- International Publication No. WO 01/56190; (Qualcomm Incorporated) Multi-Link Transmission of Data Over a Cellular Network
- Russian Patent No. RU 2003110572; Method and Apparatus for High Data Rate Transmission in a Wireless Communication System
- R1-073463 - 3GPP TSG RAN WG1 Meeting #50; Athens, Greece, 20-24 August, 2007; (NEC Group, NTT DoCoMo) Multiplexing of uplink data-non-associated control signal with data
- R1-073388 - 3GPP TSG RAN1#50; Athens, Greece, August 20-24, 2007; (Motorola) UL L1/L2 Control Signals with Data: Multiplexing Detail
- Japanese Patent No. JP2007511975; Apparatus and Method for Transmitting and receiveing Common Control informaiton in a Wireless Communication System
- US Patent Publication Application No. US 2008/130605; (Samsung Electronics Co., LTD) Appapartus and Method for Transmitting and Receiving Common Control Information in a Wireless Communication System
- US Patent Application No. 11/860,615; Method and Apparatus for Transmission of Uplink Control Signaling and User Data in a Single Carrier Orthogonal Frequency Division Multiplexing Communication System
- US Provisional Patent Application No. 61/220,556; Control and Data Signalin in Heterogeneous Wireless Communication Networks
- US Patent Publication Application No. US 2008/0165873; (Motorola) Method and Apparatus for Transmission of Uplink Control Signaling and User Data in a Single Carrier Orthogonal Frequency Division Multiplexing Communication System

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- R1-073269 - An5xter73GPP TSG-RAN WG1 #50; Athens, Greece, August 20 - 24, 2007; (Qualcomm Europe) Rate matching details for control and data multiplexing
- R1-073842 - TSG-RAN WG1 #50; Athens, Greece, August 20 – 24, 2007; Notes from uplink control signaling discussions
- R1-080309 - 3GPP TSG RAN WG1 Meeting #51bis; Seville, Spain, January 14 – 18, 2008; (Nokia Siemens Networks, Nokia) Open items of control signalling on PUSCH
- IEEE Communications Magazine; Frequency Domain Equalization for Single-Carrier Broadband Wireless Systems
- "3GPP TR 25.876 V2.0.0 (2005-10) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Multiple-Input Multiple Output in UTRA"
- (Motorola Labs) Aggressive Modulation/Coding Scheme Selection For Maximizing System Throughput In A Multi-Carrier System
- (Wireless Signal Processing & Networks Lab (WSPN)) Analysis of Modulation and Coding Scheme Selection in MIMO-OFDM Systems
- Japanese Patent No. JP2004-266739A;
- Japanese Patent No. JP2005-160079A;
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THIRD AFFIRMATIVE DEFENSE -- PROSECUTION HISTORY ESTOPPEL

34. The asserted claims are limited by the text of the Asserted Patents, their prosecution histories, and/or the prior art such that Samsung is estopped or otherwise precluded from asserting that any claim is infringed by Ericsson, literally or under the doctrine of equivalents.

FOURTH AFFIRMATIVE DEFENSE -- LACK OF A DOMESTIC INDUSTRY

35. Samsung has not adequately alleged and cannot prove the existence of a domestic industry, as required by Section 337(a)(2) and defined by Section 337(a)(3), in connection with any of the Asserted Patents, or that such domestic industry is in the process of being established.

FIFTH AFFIRMATIVE DEFENSE -- NO UNFAIR ACT

36. Ericsson has committed no unfair act.

SIXTH AFFIRMATIVE DEFENSE -- THE PUBLIC INTEREST

37. The relief sought by Samsung is not in the public interest.

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SEVENTH AFFIRMATIVE DEFENSE -- GOVERNMENT SALES

38. Importations for the benefit of, and sales to, the United States government are outside the scope of this proceeding.

EIGHTH AFFIRMATIVE DEFENSE -- LACK OF STANDING

39. Samsung lacks standing to assert the Asserted Patents.

NINTH AFFIRMATIVE DEFENSE --BREACH OF FRAND OBLIGATION (BREACH OF CONTRACT, ESTOPPEL, PATENT MISUSE, UNCLEAN HANDS)

40. Samsung claims infringement of certain patents that are alleged to be essential to, or have been declared by Samsung as essential to, compliance with one or more telecommunication standards that have been promulgated by standard setting organizations, including the European Telecommunications Standards Institute (“ETSI”) (collectively, “Asserted Samsung Essential Patents”).

41. ETSI, which participated in developing the LTE wireless standards, requires its members to make certain declarations with regard to that member’s patents to the extent the patents are essential to compliance with ETSI standards. *See, e.g.*, ETSI Rules of Procedure, Annex 6: ETSI Intellectual Property Rights Policy, Clauses 4.1 and 6.1; *Id.*, Annex 6 - Appendix A: IPR Licensing Declaration forms. Samsung has declared to ETSI and its members that it will agree to grant licenses for the Asserted Samsung Essential Patent patents on terms that are fair, reasonable, and non-discriminatory (“FRAND”).²

42. Samsung’s FRAND commitment is a contractually binding commitment that can be enforced by Ericsson as a third-party beneficiary.

² Individual members of the 3rd Generation Partnership Project (“3GPP”) such as Samsung agree to be bound by the intellectual property rights (“IPR”) policy of ETSI when working within 3GPP.

PUBLIC VERSION

its FRAND commitments constitutes patent misuse and unclean hands, which preclude Samsung from obtaining any remedy in this Investigation.

47. In addition, Samsung's breach of its FRAND commitment is evidence showing that an exclusion order in this instance would not be in the public interest. Samsung's refusal to grant a license to Ericsson, despite its obligation to do so, precludes issuance of an exclusion order or any other remedy in this Investigation.

TENTH AFFIRMATIVE DEFENSE --

UNENFORCEABILITY DUE TO INEQUITABLE CONDUCT

A. Inequitable Conduct As To the '749 Patent

48. The '749 patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the '749 patent knowingly withheld material information from the United States Patent and Trademark Office ("PTO") or made false statements of material fact to the Patent Office, all with an intent to deceive the PTO. The '749 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

49. Samsung has asserted in its Complaint that Ericsson directly infringes at least claims 1-13 of the '749 Patent by making, using, selling offering for sale within the United States and/or importing into the United States, Accused Products for use with LTE applications that implement the LTE wireless communications standards, including 3GPP TS 36.211 v8.5.0.

50. The '749 patent lists a U.S. filing date of March 21, 2008. The '749 Patent was issued on August 24, 2010.

PUBLIC VERSION

51. 3GPP is the standard setting organization responsible for the standardization of LTE.

52. 3GPP Technical Specification 36.211 v8.5.0 was published in or around December 2008.

53. Samsung and one or more of the specific individuals named as inventors of the '749 Patent participated in the 3GPP standardization of LTE prior to the filing date of the '749 Patent and in particular in 3GPP TS RAN WG1.

54. As a result of their participation in the standardization of LTE within 3GPP, Samsung and one or more of the specific individuals named as inventors of the '749 Patent had access to and knowledge of prior art disclosures and documents that included submissions to 3GPP working groups, emails disseminated throughout 3GPP mailing lists, and 3GPP draft specifications ("3GPP Prior Art").

55. For example, named inventor of the '749 Patent, Hwan-Joon (Eddy) Kwon, was present at the 3GPP TSG RAN WG1 #48bis meeting held in St. Julians, Malta on March 26- 30, 2007 and present at the 3GPP TSG RAN WG1 #47bis meeting held in Sorrento, Italy on January 15-19, 2007. *See* <http://webapp.etsi.org/3gppregistration/fviewpart.asp?mid=26242>; <http://webapp.etsi.org/3gppregistration/fviewpart.asp?mid=26241>

56. In addition, at least named inventor, Hwan-Joon (Eddy) Kwon, was regularly involved in the 3GPP mailing list discussions for 3GPP TSG RAN WG1.

57. In addition, Samsung and one or more of the specific individuals named as inventors of the '749 Patent participated in the IEEE standardization of 802.16 and WiMAX/WiBro prior to the filing date of the '749 Patent.

PUBLIC VERSION

58. As a result of their participation in the standardization of 802.16, Samsung and one or more of the specific individuals named as inventors of the '749 Patent had access to and knowledge of prior art disclosures and documents that included submissions to IEEE 802.16 working groups, emails disseminated throughout IEEE 802.16 mailing lists, and 802.16 draft specifications ("802.16 Prior Art").

59. For example, named inventor of the '749 Patent, Dong-Hee Kim, participated and made proposals to IEEE 802.16. www.ieee802.org/16/tge/contrib/C80216e-04_556.pdf

60. As part of the application leading to the issuance of the '749 Patent, the individuals named as inventors of the '749 Patent certified and acknowledged that they had a duty to disclose information and material that was material to the patentability of the invention claimed in the application. *See* Declaration/Power of Attorney dated December 23, 2008 in U.S. Patent Application No. 12/244,445.

61. The 3GPP and 802.16 Prior Art was material to patentability of the claims of the '749 Patent.

62. Throughout the prosecution of the '749 Patent the inventors withheld 3GPP and 802.16 Prior Art, including, but not limited to the 3GPP and 802.16 Prior Art noted above in paragraph 33A for the '749 Patent. The only inference that can be drawn from the facts is that the inventors of the '749 Patent intentionally and deliberately withheld 3GPP and 802.16 Prior Art from the PTO, including such prior art found in paragraph 33A.

63. The claims of the '749 Patent would not have been allowed by the PTO over the withheld information but for the inventors' intentional misconduct. The intentional and deliberate withholding of prior art from the PTO has resulted in the '749 Patent being unenforceable due to inequitable conduct by the alleged inventors.

PUBLIC VERSION

B. Inequitable Conduct As To the '081 Patent

64. The '081 Patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the '081 Patent knowingly withheld material information from the Patent Office or made false statements of material fact to the Patent Office, all with an intent to deceive the Patent Office. The '081 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

65. Samsung has asserted in its Complaint that Ericsson directly infringes at least claims 1,4,9, and 12 of the '081 Patent by making, using, selling offering for sale within the United States and/or importing into the United States, Accused Products that implement the LTE wireless communications standards, including 3GPP TS 36.212 v8.5.0 and 3GPP TS 36.213 v8.5.0.

66. The '081 Patent lists a U.S. filing date of February 4, 2009. The '081 Patent was issued on April 24, 2012.

67. 3GPP is the standard setting organization responsible for the standardization of LTE.

68. 3GPP TS 36.212 v8.5.0 was published on December 18, 2008.

69. 3GPP TS 36.213 v8.5.0 was published on December 22, 2008.

70. Samsung and one or more of the specific individuals named as inventors of the '081 Patent participated in the 3GPP standardization of LTE prior to the filing date of the '081 Patent.

PUBLIC VERSION

71. Samsung and one or more of the specific individuals named as inventors of the '081 Patent participated in the 3GPP standardization of LTE prior to the issuance date of the '081 Patent.

72. As a result of their participation in the standardization of LTE within 3GPP, Samsung and one or more of the specific individuals named as inventors of the '081 Patent had access to and knowledge of prior art documents that included submissions to 3GPP working groups, emails disseminated throughout 3GPP mailing lists, and 3GPP draft specifications (“3GPP Prior Art”).

73. For example, one of the named inventors of the '081 Patent, Aris Papasakellariou, was active in 3GPP's standardization efforts. *See, e.g.* the 3GPP reports available as “R1-073240” (available at http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_50/Docs/), “R1-073895” (available at http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_50b/Docs/), and “R1-074525” (available at http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_51/Docs/) — each document demonstrates Aris Papasakellariou's involvement in 3GPP through the preparation of the summary of the conclusions from the email ad hoc for 3GPP meetings.

74. For example, both of the named inventors of the '081 Patent, Aris Papasakellariou and Joon-Young Cho, were present at the 3GPP TSG RAN WG1 Meeting #51b held in Sevilla, Spain, 14 – 18 January, 2008. *See* the report available as “R1-080002” (available at http://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_51/Report/ and containing “3gppRAN1_51attendee.xls”).

75. As part of the application leading to the issuance of the '081 Patent, the individuals named as inventors of the '081 Patent certified and acknowledged that they had a

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duty to disclose information and material that was material to the patentability of the invention claimed in the application.

76. Throughout the prosecution of the '081 Patent the inventors never filed an IDS or otherwise notified the U.S.P.T.O. of any of the 3GPP Prior Art, except that after the U.S.P.T.O. had already provided a notice of issuance of the '081 Patent the inventors noted two pieces of 3GPP Prior Art.

77. The 3GPP Prior Art was material to patentability of the claims of the '081 Patent.

78. In the IDS submitted after notice of allowance of the '081 Patent, the two pieces of prior art the inventors of the '081 Patent noted were: "R1-073463 - 3GPP TSG RAN WG1 Meeting #50; Athens, Greece, 20-24 August, 2007; (NEC Group, NTT DoCoMo) Multiplexing of uplink data-non-associated control signal with data" and "R1-073388 - 3GPP TSG RAN1#50; Athens, Greece, August 20-24, 2007; (Motorola) UL L1/L2 Control Signals with Data: Multiplexing Detail." The Examiner never initialed the IDS, where such initialing would have been an indication that the Examiner had considered these references.

79. The U.S.P.T.O. never considered "R1-073463 - 3GPP TSG RAN WG1 Meeting #50; Athens, Greece, 20-24 August, 2007; (NEC Group, NTT DoCoMo) Multiplexing of uplink data-non-associated control signal with data" or "R1-073388 - 3GPP TSG RAN1#50; Athens, Greece, August 20-24, 2007; (Motorola) UL L1/L2 Control Signals with Data: Multiplexing Detail" during prosecution of the '081 Patent.

80. The documents "R1-073463 - 3GPP TSG RAN WG1 Meeting #50; Athens, Greece, 20-24 August, 2007; (NEC Group, NTT DoCoMo) Multiplexing of uplink data-non-associated control signal with data" and "R1-073388 - 3GPP TSG RAN1#50; Athens, Greece,

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August 20-24, 2007; (Motorola) UL L1/L2 Control Signals with Data: Multiplexing Detail” are not present under the “References Cited” portion of the ’081 Patent.

81. The only inference that can be drawn from the facts is that the inventors of the ’081 Patent intentionally and deliberately withheld 3GPP Prior Art from the U.S.P.T.O., including such prior art found in paragraph 33B.

82. The intentional and deliberate withholding of prior art from the P.T.O. results in the ’081 Patent being unenforceable due to inequitable conduct by the alleged inventors. The claims of the ’081 Patent would not have been allowed by the U.S.P.T.O over the withheld information but for the inventors’ intentional misconduct.

C. Inequitable Conduct As To the ‘438 Patent

83. The ’438 patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the ’438 patent knowingly withheld material information from the United States Patent and Trademark Office (“PTO”) or made false statements of material fact to the PTO, all with an intent to deceive the PTO. The ’438 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

84. Samsung has asserted in its Complaint that Ericsson directly infringes at least claims 1-14 of the ‘438 Patent by making, using, selling offering for sale within the United States and/or importing into the United States, Accused Products that implement the LTE wireless communications standards, including 3GPP TS 36.211 v8.5.0.

85. The ’438 patent lists a U.S. filing date of October 2, 2008. The ’438 Patent was issued on June 26, 2012.

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86. 3GPP is the standard setting organization responsible for the standardization of LTE.

87. 3GPP Technical Specification 36.211 v8.5.0 was published in or around December 2008.

88. Samsung and one or more of the specific individuals named as inventors of the '438 Patent participated in the 3GPP standardization of LTE prior to the filing date of the '438 Patent and in particular in 3GPP TS RAN WG1.

89. As a result of their participation in the standardization of LTE within 3GPP, Samsung and one or more of the specific individuals named as inventors of the '438 Patent had access to and knowledge of prior art disclosures and documents that included submissions to 3GPP working groups, emails disseminated throughout 3GPP mailing lists, and 3GPP draft specifications ("3GPP Prior Art").

90. For example, named inventors of the '438 Patent, Jin-Kyu Han, Ju-Ho Lee, Hwan-Joon (Eddy) Kwon, and Young-Bum Kim, were present at the 3GPP TSG RAN WG1 #48bis meeting held in St. Julians, Malta on March 26- 30, 2007. *See* <http://webapp.etsi.org/3gppregistration/fviewpart.asp?mid=26242>.

91. In addition, at least named inventors, Ju-Ho Lee, Hwan-Joon (Eddy) Kwon, Young-Bum Kim and Hyoung-Ju Li, were regularly involved in the 3GPP mailing list discussions for 3GPP TSG RAN WG1.

92. In addition, Samsung and one or more of the specific individuals named as inventors of the '438 Patent participated in the IEEE standardization of 802.16 and WiMAX/WiBro prior to the filing date of the '438 Patent.

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93. As a result of their participation in the standardization of 802.16, Samsung and one or more of the specific individuals named as inventors of the '438 Patent had access to and knowledge of prior art disclosures and documents that included submissions to IEEE 802.16 working groups, emails disseminated throughout IEEE 802.16 mailing lists, and 802.16 draft specifications ("802.16 Prior Art").

94. For example, named inventor of the '438 Patent, Jin-Kyu Han, participated and made proposals to IEEE 802.16. www.ieee802.org/16/tge/contrib/C80216e-04_556.pdf

95. As part of the application leading to the issuance of the '438 Patent, the individuals named as inventors of the '438 Patent certified and acknowledged that they had a duty to disclose information and material that was material to the patentability of the invention claimed in the application. *See* Declaration/Power of Attorney dated December 23, 2008 in U.S. Patent Application No. 12/244,445.

96. The 3GPP and 802.16 Prior Art was material to patentability of the claims of the '438 Patent.

97. Throughout the prosecution of the '438 Patent the inventors withheld 3GPP and 802.16 Prior Art, including, but not limited to the 3GPP and 802.16 Prior Art noted above in paragraph 33C for the '438 patent. The only inference that can be drawn from the facts is that the inventors of the '438 Patent intentionally and deliberately withheld 3GPP and 802.16 Prior Art from the PTO, including such prior art found in paragraph 33C.

98. The claims of the '438 Patent would not have been allowed by the PTO over the withheld information but for the inventors' intentional misconduct. The intentional and deliberate withholding of prior art from the PTO has resulted in the '438 Patent being unenforceable due to inequitable conduct by the alleged inventors.

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D. Inequitable Conduct As To the '827 Patent

99. The '827 Patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the '827 Patent knowingly withheld material information from the Patent Office or made false statements of material fact to the Patent Office, all with an intent to deceive the Patent Office. The '827 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

100. Samsung has asserted in its Complaint that Ericsson directly infringes at least claims 1-8 of the '827 Patent by making, using, selling, offering for sale within the United States and/or importing into the United States, Accused Products that implement the LTE wireless communications standards, including 36.212 v8.5.0, 3GPP TS 36.300 v8.5.0, and 36.321 v8.5.0.

101. The '827 Patent lists a U.S. filing date of February 8, 2008. The '827 Patent was issued on July 24, 2012.

102. 3GPP is the standard setting organization responsible for the standardization of LTE.

103. 3GPP TS 36.212 v8.5.0 was published on December 18, 2008.

104. 3GPP TS 36.300 v8.5.0 was published on June 25, 2008.

105. 3GPP TS 36.321 v8.5.0 was published on March 23, 2009.

106. Samsung and one or more of the specific individuals named as inventors of the '827 Patent participated in the 3GPP standardization of LTE prior to the filing date of the '827 Patent.

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107. Samsung and one or more the specific individuals named as inventors of the '827 Patent participated in the 3GPP standardization of LTE prior to the issuance date of the '827 Patent.

108. For example, each of the named inventors of the '827 Patent, Kyeong-In Jeong, Gert Jan Van Lieshout, Himke Van Der Velde, and Soeng-Hun Kim were present at the 3GPP 3GPP TSG RAN WG2 #56bis meeting held January 15-19, 2007 in Sorrento, Italy. *See* <http://webapp.etsi.org/3gppregistration/fviewpart.asp?mid=26243>.

109. As part of the application leading to the issuance of the '827 Patent, the individuals named as inventors of the '827 Patent certified and acknowledged that they had a duty to disclose information and material that was material to the patentability of the invention claimed in the application.

110. As a result of their participation in the standardization of LTE within 3GPP, Samsung and the specific individuals named as inventors of the '827 Patent had access to and knowledge of prior art documents that included submissions to 3GPP working groups, emails disseminated throughout 3GPP mailing lists, and 3GPP draft specifications ("3GPP Prior Art").

111. The 3GPP Prior Art was material to patentability of the claims of the '827 Patent.

112. Throughout the prosecution of the '827 Patent the inventors withheld 3GPP Prior Art, disclosing only three documents: "3GPP TR 25.814 V7.1.0 (2006-09) Technical Report; 3rd Generation Partnership Project; Technical Specification Group Radio access Network; Physical layer aspects for evolved Universal Terrestrial Radio Access (UTRA) (Release 7)," "R20071105 - 3GPP TSG-RAN WG2 #56bis, 15-19 January 2006, Sorrento, Italy, (TD Tech) Initial Random Access for LCR TDD," and "R2-070365 - 3GPP TSG-RAN WG2 #56bis, 15-19 January 2006,

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Sorrento, Italy, (Ericsson) E-UTRAN Random Access procedure C-RNTI assignment and HARQ on message 4 with RACH model.”

113. The only inference that can be drawn from the facts is that the inventors of the '827 Patent intentionally and deliberately withheld 3GPP Prior Art from the U.S.P.T.O., including such prior art found in paragraph 33D.

114. The intentional and deliberate withholding of prior art from the P.T.O. results in the '827 Patent being unenforceable due to inequitable conduct by the alleged inventors. The claims of the '827 Patent would not have been allowed by the U.S.P.T.O over the withheld information but for the inventors' intentional misconduct.

E. Inequitable Conduct As To the '929 Patent

115. The '929 Patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one alleged inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the '929 Patent knowingly withheld material information from the Patent Office or made false statements of material fact to the Patent Office, all with an intent to deceive the Patent Office.

116. As part of the application leading to the issuance of the '929 Patent, the alleged inventors of the '929 Patent certified and acknowledged that they had a duty to disclose information and material that was material to the patentability of the invention claimed in the application.

117. The '929 Patent lists a U.S. filing date of Feb. 19, 2002.

118. In May 2001, the alleged inventors published an article “Experimental Investigation on Efficiency and Linearity of Microwave Doherty Amplifier” through the IEEE.

119. The alleged inventors listed 5 references in their May 2001 article.

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120. Each of the 5 references listed in the alleged inventors' May 2001 article discusses Doherty amplifiers.

121. Each of the 5 references listed in the alleged inventors' May 2001 article is prior art to the '929 Patent.

122. On December 1, 2001, the alleged inventors published an article titled "Optimum Design for Linearity and Efficiency of a Microwave Doherty Amplifier Using a New Load Matching Technique" in Microwave Journal.

123. The alleged inventors listed 10 references in their December 2001 article.

124. Two of the 10 references listed in the alleged inventors' December 2001 article are references to the alleged inventors' previous articles on Doherty amplifiers.

125. Eight of the 10 references listed in the alleged inventors' December 2001 article are prior art to the '929 Patent.

126. The alleged inventors' May 2001 and December 2001 articles list W.H. Doherty, "A New High Efficiency Power Amplifier for Modulated Waves," Proc. IRE, Vol. 24, No. 9, pp. 1163-1182, 1936.

127. W.H. Doherty, "A New High Efficiency Power Amplifier for Modulated Waves," Proc. IRE, Vol. 24, No. 9, pp. 1163-1182, 1936 is prior art to the '929 Patent.

128. The alleged inventors' December 2001 article lists F.H. Raab, "Efficiency of Doherty RF Power Amplifier Systems," IEEE Transactions of Broadcasting , Vol. BC-33, No. 3, September 1987, pp. 77-83.

129. F.H. Raab, "Efficiency of Doherty RF Power Amplifier Systems," IEEE Transactions of Broadcasting , Vol. BC-33, No. 3, September 1987, pp. 77-83 is prior art to the '929 Patent.

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130. The alleged inventors' May 2001 and December 2001 articles list D.M. Upton, "A New Circuit Topology to Realize High Efficiency, High Linearity, and High Power Microwave Amplifiers," RAWCON'98 Proceedings, pp. 317-320, 1998.

131. D.M. Upton, "A New Circuit Topology to Realize High Efficiency, High Linearity, and High Power Microwave Amplifiers," RAWCON'98 Proceedings, pp. 317-320, 1998 is prior art to the '929 Patent.

132. The alleged inventors' May 2001 and December 2001 articles list C.P. McCarroll, G.D. Alley, S. Yates, and R. Matreci, "A 20GHz Doherty Power Amplifier MMIC with High Efficiency and Low Distortion Designed for Broad Band Digital Communication Systems," IEEE MTT-S Int. Microwave Sympo. Dig., pp. -, 2000.

133. C.P. McCarroll, G.D. Alley, S. Yates, and R. Matreci, "A 20GHz Doherty Power Amplifier MMIC with High Efficiency and Low Distortion Designed for Broad Band Digital Communication Systems," IEEE MTT-S Int. Microwave Sympo. Dig., pp. -, 2000 is prior art to the '929 Patent.

134. The alleged inventors' May 2001 and December 2001 articles list K.W. Kobayashi, A.K. Oki, A. Guitierrez-Aitken, P. Chin, Li Yang, E. Kaneshiro, P.C. Grossman, K. Sato, T.R. Block, H.C. Yen, and D.C. Streit, "An 18-21GHz InP DHBT Linear Microwave Doherty Amplifier," IEEE RFIC Sympo. Dig., pp. 179-182, 2000.

135. K.W. Kobayashi, A.K. Oki, A. Guitierrez-Aitken, P. Chin, Li Yang, E. Kaneshiro, P.C. Grossman, K. Sato, T.R. Block, H.C. Yen, and D.C. Streit, "An 18-21GHz InP DHBT Linear Microwave Doherty Amplifier," IEEE RFIC Sympo. Dig., pp. 179-182, 2000 is prior art to the '929 Patent.

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136. The alleged inventors' May 2001 and December 2001 articles list C.P. Campbell, "A Fully Integrated Ku-Band Doherty Amplifier MMIC," IEEE Microwave and Guided Wave Letters, Vol. 9, No. 3, 1999.

137. C.P. Campbell, "A Fully Integrated Ku-Band Doherty Amplifier MMIC," IEEE Microwave and Guided Wave Letters, Vol. 9, No. 3, 1999 is prior art to the '929 Patent.

138. The alleged inventors' December 2001 article lists S.C. Cripps, *RF Power Amplifiers for Wireless Communications*, Artech House Inc., Norwood, MA, 1999.

139. S.C. Cripps, *RF Power Amplifiers for Wireless Communications*, Artech House Inc., Norwood, MA, 1999. is prior art to the '929 Patent.

140. The alleged inventors' December 2001 article lists P.B. Kenington, High Linearity RF Amplifier Design, Artech House Inc., Norwood, MA, 2000.

141. P.B. Kenington, High Linearity RF Amplifier Design, Artech House Inc., Norwood, MA, 2000 is prior art to the '929 Patent.

142. The alleged inventors never filed an IDS or otherwise disclosed any of these five pieces of prior art to the PTO.

143. The alleged inventors never filed an IDS or otherwise notified the PTO of any prior art.

144. The only art referenced in the prosecution of the '929 Patent was prior art discovered by the PTO.

145. The PTO did not discover, were not notified of, and did not review any of the five references listed in the alleged inventors' "Experimental Investigation on Efficiency and Linearity of Microwave Doherty Amplifier" article.

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146. The '929 Patent includes two figures labeled "Prior Art" in the patent application, Figs. 1 and 2.

147. The sources of Figs. 1 and 2 of the '929 Patent were never disclosed to the PTO.

148. Fig. 1 from the '929 Patent is based on Fig. 1 from an article by David M. Upton and Peter R. Maloney titled "A New Circuit Topology to Realize High Efficiency, High Linearity, and High Power Microwave Amplifiers" starting on page 317 of the IEEE RAWCON'98 Proceedings (hereinafter "Upton").

149. Upton was one of the references listed in the alleged inventors' May 2001 and December 2001 articles.

150. Upton emphasizes the importance of having "well-phase-matched" stages. Upton at 318.

151. Fig. 2 of the '929 Patent, is a modified version of Fig. 4 of U.S. Patent No. 5,420,541 (the '541 Patent).

152. Upton references U.S. Patent No. 5,420,541 (the '541 Patent).

153. The alleged inventors knew about the '541 Patent.

154. The alleged inventors modified or had modified a figure from the '541 Patent for use in the patent application for the '929 Patent.

155. The alleged inventors intentionally withheld disclosure of the '541 Patent from the PTO.

156. Figs. 5 and 6 of the '541 Patent depict how the implementation of a Doherty amplifier would include additional sections of traces that function as phase tuning components.

157. The '541 Patent also explicitly teaches the use of a "distributed line means coupled between an output of the first output signal amplifying means and an output of the

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second output signal amplifying means for controlling the phase of the output of the first output signal amplifying means relative to the output of the second output signal amplifying means whereby . . . [they] combine in additive phase and the distributed line means further provides impedance transforming action to an apparent load.” ’541 Col. 4:68–5:9.

158. The ’541 is materially relevant to the patentability of the ’929 Patent claims, was known by the alleged inventors before they applied for the ’929 Patent, even includes figures from the ’541 Patent, yet was intentionally withheld from the PTO during prosecution of the ’929 Patent.

159. The claims of the ’929 Patent would not have been allowed by the PTO over the withheld information but for the inventors’ intentional misconduct. The intentional and deliberate withholding of prior art from the PTO has resulted in the ’929 Patent being unenforceable due to inequitable conduct by the alleged inventors.

160. The ’929 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

161. The intentional and deliberate withholding of prior art from the P.T.O. results in the ’929 Patent being unenforceable due to inequitable conduct by the alleged inventors.

F. Inequitable Conduct As To the ‘813 Patent

162. The alleged inventors of the ’813 Patent intentionally withheld multiple pieces of relevant prior art from the P.T.O. during prosecution of the ’813 Patent. Kang-yoon Lee is the named inventor on several other patents filed before the filing of the ’813 Patent. Jong-Woo Park is the author of several articles published before the filing of the ’813 Patent. These other patents and articles are in the field of semiconductor fabrication and were known to at least one of the alleged inventors of the ’813 Patent, but were never disclosed to the P.T.O. The ’813

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Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

163. For example, U.S. Patent No. 5,795,801 lists Kang-yoon Lee as a named inventor and lists 20 pieces of prior art, none of which were even listed as cited by the examiner. Among those pieces of art, at least U.S. Patent Nos. 4,415,371, 4,466,178, 4,756,793, 5,506,168, 4,419,150, 4,523,369, 4,534,824, 4,653,177, 4,918,027, and 5,047,359 are highly relevant prior art for the '813 Patent and should have been disclosed to the P.T.O.

164. For example, the article "A 0.15 um NAND Flash Technology with 0.11 um Cell Size for 1Gbit Flash Memory," published by the IEEE, includes Jong-Woo Park as an author. This article cites 2 pieces of prior art, neither of which were even listed as cited by the examiner during prosecution of the '813 patent. Among those pieces of art, at least "A Novel High-Density SF2 NAND STI Cell Technology Suitable for 256Mbit and 1Gbit Flash Memories," is highly relevant prior art for the '813 Patent and should have been disclosed to the P.T.O.

165. The intentional and deliberate withholding of prior art from the P.T.O. results in the '813 Patent being unenforceable due to inequitable conduct by the alleged inventors.

G. Inequitable Conduct As To the '682 Patent

166. The '682 Patent is unenforceable pursuant to 37 C.F.R. 1.56 and the doctrine of inequitable conduct. On information and belief, at least one inventor and/or other persons associated with the filing and prosecution of the respective applications that led to the issuance of the '682 Patent knowingly withheld material information from the Patent Office or made false statements of material fact to the Patent Office, all with an intent to deceive the Patent Office.

167. As part of the application leading to the issuance of the '682 Patent, the alleged inventors of the '682 Patent certified and acknowledged that they had a duty to disclose

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information and material that was material to the patentability of the invention claimed in the application.

168. Gerald Talbot is an alleged inventor on several patents other than just the '682 Patent.

169. Hanwoo Cho is an alleged inventor on several patents other than just the '682 Patent.

170. Some of the other patents on which Gerald Talbot and/or Hanwoo Cho are alleged inventors are in the field of microprocessor modules and were known to at least one of the alleged inventors and prosecuting agents or attorneys of the '682 Patent, but were never disclosed to the PTO.

171. For example, U.S. Patent No. 6,084,774 lists Gerald Talbot as a named inventor.

172. U.S. Patent No. 6,084,774 lists 6 pieces of prior art, including U.S. Patents No. 5,650,917 and 5,894,408.

173. The alleged inventors or the prosecuting agent or attorney of U.S. Patent No. 6,084,774 disclosed U.S. Patents No. 5,650,917 and 5,894,408 to the PTO during prosecution of U.S. Patent No. 6,084,774.

174. U.S. Patents No. 5,650,917 and 5,894,408 were known by the alleged inventors or the prosecuting agent or attorney of the '682 Patent during examination of the '682 Patent.

175. U.S. Patents No. 5,650,917 and 5,894,408 are material prior art for the '682 Patent.

176. The alleged inventors and prosecuting attorneys and agents for the '682 Patent had a duty to disclose U.S. Patents No. 5,650,917 and 5,894,408 to the PTO during prosecution of the '682 Patent.

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177. U.S. Patents No. 5,650,917 and 5,894,408 were not disclosed to the PTO during examination of the '682 Patent by either the alleged inventors or the prosecution agent or attorney of the '682 Patent.

178. For example, U.S. Patent No. 6,516,373 lists Gerald Talbot and Hanwoo Cho as named inventors.

179. U.S. Patent No. 6,516,373 lists 10 pieces of prior art, including U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794.

180. Anthony P. Onello Jr. and Steven Mills are the registered attorneys who prosecuted the '682 Patent.

181. Anthony P. Onello Jr. and Steven Mills are the registered attorneys who prosecuted U.S. Patent No. 6,516,373.

182. U.S. Patent No. 6,516,373 lists an issue date of Feb. 4, 2003.

183. The '682 Patent was still being examined as of Feb. 4, 2003.

184. The alleged inventors or prosecuting agents or attorneys for U.S. Patent No. 6,516,373 disclosed U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794 to the PTO during prosecution of U.S. Patent No. 6,516,373.

185. U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794 were known by the alleged inventors or prosecuting agents or attorneys for U.S. Patent No. 6,516,373 during examination of the '682 Patent.

186. U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794 are material prior art for the '682 Patent.

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187. The alleged inventors and prosecuting agents or attorneys for the '682 Patent had a duty to disclose U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794 to the PTO during prosecution of the '682 Patent.

188. U.S. Patents No. 5,428,806; 5,625,802; 5,761,479; 5,848,250; 5,862,351; and 6,052,794 were not disclosed to the PTO during examination of the '682 Patent by any of the alleged inventors or prosecuting agents or attorneys of the '682 Patent.

189. For example, U.S. Patent No. 6,772,328 lists Gerald Talbot and Hanwoo Cho as named inventors.

190. U.S. Patent No. 6,772,328 lists 26 pieces of prior art, including U.S. Patents No. 5,325,490; 5,463,742; 5,625,802; 5,862,351; 5,898,846; 5,951,665; 6,052,794; 6,101,319; and 6,154,834.

191. Anthony P. Onello Jr. and Steven Mills are the registered attorneys who prosecuted the '682 Patent.

192. Anthony P. Onello Jr. and Steven Mills are the registered attorneys who prosecuted U.S. Patent No. 6,772,328.

193. U.S. Patent No. 6,772,328 lists an issue date of Aug. 3, 2004.

194. The '682 Patent was still being examined as of Aug. 3, 2004.

195. The alleged inventors or prosecuting agents or attorneys for U.S. Patent No. 6,772,328 disclosed U.S. Patent No. 5,625,802 to the PTO during prosecution of U.S. Patent No. 6,772,328.

196. U.S. Patents No. 5,325,490; 5,463,742; 5,625,802; 5,862,351; 5,898,846; 5,951,665; 6,052,794; 6,101,319; and 6,154,834 were known by the alleged inventors or

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prosecuting agents or attorneys for U.S. Patent No. 6,772,328 during examination of the '682 Patent.

197. U.S. Patents No. 5,325,490; 5,463,742; 5,625,802; 5,862,351; 5,898,846; 5,951,665; 6,052,794; 6,101,319; and 6,154,834 are material prior art for the '682 Patent.

198. The alleged inventors or prosecuting agents or attorneys for the '682 Patent had a duty to disclose U.S. Patents No. 5,325,490; 5,463,742; 5,625,802; 5,862,351; 5,898,846; 5,951,665; 6,052,794; 6,101,319; and 6,154,834 to the PTO during prosecution of the '682 Patent.

199. U.S. Patents No. 5,325,490; 5,463,742; 5,625,802; 5,862,351; 5,898,846; 5,951,665; 6,052,794; 6,101,319; and 6,154,834 were not disclosed to the PTO during examination of the '682 Patent by any of the alleged inventors or prosecuting agents or attorneys of the '682 Patent.

200. The alleged inventors and prosecuting agents or attorneys of the '682 Patent never filed an IDS for the '682 Patent.

201. The alleged inventors and prosecuting agents or attorneys of the '682 Patent never notified the PTO of any prior art to the '682 Patent.

202. All of the references of record for the '682 Patent are art discovered independently by the PTO during examination.

203. The attorneys or agents prosecuting the '682 Patent have committed inequitable contact by not disclosing the material prior art from these other patent applications.

204. The registered attorneys for the '682 Patent are the same attorneys registered as prosecuting the U.S. 6,516,373 and U.S. 6,772,328 Patents, Anthony Onello, Jr. and Steven Mills.

PUBLIC VERSION

205. As the prosecuting attorneys, Mr. Onello and Mr. Mills saw the prior art being cited in the prosecution of these other patents in the same field by the same inventors, yet different Patent Examiners.

206. Mr. Onello and Mr. Mills, however, despite knowing about this materially relevant art, deliberately withheld this prior art in the prosecution of the '682 Patent, and in fact, never disclosed any prior art at all in prosecuting the '682 Patent.

The claims of the '682 Patent would not have been allowed by the PTO over the withheld information but for the inventors' intentional misconduct. The intentional and deliberate withholding of prior art from the PTO has resulted in the '682 Patent being unenforceable due to inequitable conduct by the alleged inventors.

207. The '682 Patent would not have issued but for this omission, and the only reasonable inference is these omissions were made with an intent to deceive the PTO.

208. The intentional and deliberate withholding of prior art from the P.T.O. results in the '682 Patent being unenforceable due to inequitable conduct by the alleged inventors.

ELEVENTH AFFIRMATIVE DEFENSE -- PATENT EXHAUSTION, LICENSE

209. On information and belief, Ericsson has an express or implied license to practice one or more of the Asserted Patents because Samsung's rights in those patents are exhausted as to Ericsson.

210. Upon information and belief, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] and use by Ericsson cannot infringe the '813 Patent.

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TWELFTH AFFIRMATIVE DEFENSE -- OTHER DEFENSES

211. Ericsson reserves the right to amend its Response to include other affirmative defenses that Ericsson may learn of during the course of this investigation.

PRAYER FOR RELIEF

WHEREFORE, Ericsson requests that the Commission issue an order:

212. Denying all relief requested in the Complaint;
213. Finding that Ericsson has not violated Section 337 of the Tariff Act of 1930, as amended;
214. Finding that Ericsson has not infringed, whether directly and/or indirectly, any asserted claim of the Asserted Patents;
215. Finding that all Asserted Patents are invalid and unenforceable;
216. Finding that there is no domestic industry for any of the Asserted Patents;
217. Awarding Ericsson its attorneys' fees and costs incurred in responding to the Complaint and defending this investigation;
218. Dismissing the Complaint and terminating the present investigation; and
219. Awarding such other and further relief as the Commission deems just and proper.

Dated: February 26, 2013
Public Version: March 8, 2013

Respectfully submitted,

McKool Smith, P.C.

/s/ Benjamin Levi

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Douglas A. Cawley
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*Counsel for Respondents Ericsson Inc.
and Telefonaktiebolaget LM Ericsson*

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Public Version of the Response of Ericsson Inc. and Telefonaktiebolaget LM Ericsson to the Complaint of Samsung Electronics Co., Ltd. and Samsung Telecommunications America, LLC Under Section 337 of the Tariff Act of 1930, As Amended, and Notice of Investigation was served as indicated, to the parties listed below, this March 8, 2013:

<p>The Honorable Lisa R. Barton Acting Secretary U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W., Room 112-A Washington, D.C. 20436 (VIA ELECTRONIC FILING)</p>	<p>The Honorable E. James Gildea Administrative Law Judge U.S. INTERNATIONAL TRADE COMMISSION 500 E. Street, S.W. Room 317-E Washington, D.C. 20436 (VIA HAND DELIVERY - 2 copies)</p>
<p>Monisha Deka Investigative Attorney Office of Unfair Import Investigations U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W., Suite 401 Washington, D.C. 20436 Email: Monisha.Deka@usitc.gov (VIA EMAIL)</p>	<p>Sarah Zimmerman Kenneth Schopfer Attorney Advisors to Honorable E. James Gildea U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W., Suite 317-P Washington, D.C. 20436 Email: sarah.zimmerman@usitc.gov Email: kenneth.schopfer@usitc.gov (VIA EMAIL)</p>

Complainants

<p><i>Counsel for Complainants</i> <i>Samsung Electronics Co., Ltd.,</i> <i>Samsung Telecommunications America, LLC</i></p> <p>D. Sean Trainor, Esq. KIRKLAND & ELLIS LLP 655 Fifteenth Street, N.W. Washington, D.C. 20005 Telephone: (202) 879-5000 Facsimile: (202) 879-5200 Email: Samsung-EricssonITC@kirkland.com (VIA EMAIL)</p>	
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PUBLIC VERSION

 /s/ Kathryn Reinke
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