Exhibit B

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Attorneys for Plaintiff and
Counterclaim-Defendant Apple Inc.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

APPLE INC., a California corporation,

Plaintiffs,

vs.

SAMSUNG ELECTRONICS CO., LTD., a Korean business entity, SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation, and SAMSUNG TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company,

Defendants.

Civil Action No. 11-CV-01846-LHK

JURY TRIAL DEMANDED

COUNTERCLAIM DEFENDANT APPLE INC.'S AMENDED ANSWER, DEFENSES, AND COUNTERCLAIMS IN REPLY TO SAMSUNG'S COUNTERCLAIMS

SAMSUNG ELECTRONICS CO., LTD., a Korean business entity, SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation, and SAMSUNG TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company, a California corporation,

Counterclaim-Plaintiff,

v.

APPLE INC., a California corporation,

Counterclaim-Defendants.

INTRODUCTORY STATEMENT

1. This is Apple Inc.'s ("Apple") amended responsive pleading under Fed. R. Civ. P. 12, and contains Apple's defenses to the counterclaims asserted by defendants and counterclaim-plaintiffs Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively, "Samsung"), as well as Apple's Counterclaims In Reply to Samsung's Counterclaims.

2. Apple responds to the allegations contained in the numbered paragraphs of Samsung's Counterclaims below, but first provides this overview of its response.

3. Apple is a pioneer in mobile phone and tablet computer design and technology. Apple has designed its mobile phones and tablet computers with distinctive features that make them immediately recognizable as iPhones and iPads. Apple has coupled these distinguishing design details with a highly advanced interface that makes the iPhone and iPad user experience simple, intuitive, and efficient. Apple spends billions of dollars annually on research and development, and has applied for and received numerous design and utility patents to protect its innovations from copying.

4. Samsung has illicitly copied Apple's distinctive design features and innovative technologies instead of pursuing its own independent and costly product

development. Samsung has launched one product after another that imitate the look, feel, and function of Apple's products by misappropriating Apple's protected designs and technologies.

5. Apple filed this case to stop Samsung's unauthorized copying of Apple's iPhone and iPad.

6. With respect to Samsung's counterclaims of patent infringement, Apple denies that it infringes any valid claim of the patents identified in Counts I - XII of Samsung's Counterclaims ("Samsung Asserted Patents"). In any event, Samsung is precluded from enforcing the patents it asserts in this case by virtue of its license agreements with telecommunications chipset manufacturers, including Intel and Qualcomm, from which Apple buys chipsets that Samsung claims infringe its patents to incorporate into Apple's end products.

7. At various times, Samsung declared seven of the Samsung Asserted Patents to the European Telecommunications Standards Institute ("ETSI"), a leading standard-setting organization ("SSO"), as purportedly essential to practice the Universal Mobile Telecommunications Standard ("UMTS") standard, the world's most widely adopted telecommunications standard. (The patents Samsung has declared essential to the UMTS standard are referred to collectively herein as the "Declared-Essential Patents"). Time and again, however, Samsung deliberately and deceptively failed to disclose its purported intellectual property rights ("IPR") to the Third Generation Platform Partnership ("3GPP"), the SSO that set the UMTS standard, before its members decided to incorporate into the standard technologies purportedly covered by Samsung's patents, in violation of ETSI's IPR policy. Furthermore, Samsung issued a written declaration to the SSO, committing to license its Declared-Essential Patents to all implementers of the UMTS standard on fair, reasonable, and non-discriminatory ("FRAND") terms, but when 3GPP was considering alternative technologies, deliberately

and deceptively concealed from 3GPP and its constituent SSOs that it in fact would not offer FRAND license terms. Accordingly, as to all patents Samsung has declared essential to the UMTS standard, Apple is licensed in its own right, or at the very least entitled to a license on FRAND terms.

8. As set forth in detail below, Samsung has improperly used the patents it claims are infringed by the chipsets incorporated in Apple's products in an attempt to disadvantage Apple -- an innovative competitor that is threatening Samsung's sales of downstream consumer products such as smartphones and tablet computers.

9. In particular, Samsung has abusively asserted patents through this action – which is just one lawsuit in a relentless multi-jurisdictional campaign to enjoin Apple's products – to further its strategy of copying Apple's leading-edge products. Apple has repeatedly demanded that Samsung put a halt to its persistent pattern of copying. In retaliation, and to deflect from its own copying and pressure Apple to allow Samsung to continue to imitate, Samsung asserted counterclaims alleging that Apple infringes Samsung patents in complete disregard of the fact that, as Samsung well knows, Samsung is precluded from enforcing those patents against Apple, for the reasons explained in Paragraphs 6-7 above, among other reasons.

APPLE'S ANSWER TO SAMSUNG'S COUNTERCLAIMS

Apple hereby responds to each numbered paragraph of the Counterclaims as follows:

1. Apple admits that Samsung's Counterclaims purport to seek declarations and judgments for alleged patent infringement. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 1 of the Counterclaims.

2. Apple admits that Samsung purports to seek declarations of noninfringement and invalidity for each of the Apple patents in suit and certain trademarks and trade dress in suit. Apple admits that Samsung purports to seek

cancellation of the trade dress and trademark registrations in suit and a declaration of nonviolations under the California Business and Professions Code, the common law of trademarks and unfair competition, and the law of unjust enrichment. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 2 of the Counterclaims.

NATURE OF THE ACTION[1]

3. Apple admits that Samsung's Counterclaims purport to be an action for patent infringement. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 3 of the Counterclaims.

4. Paragraph 4 of the Counterclaims contains no allegation to which a response is required.

THE PARTIES

5. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 5 of the Counterclaims.

6. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 6 of the Counterclaims.

7. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 7 of the Counterclaims.

8. Apple admits the allegations in Paragraph 8 of the Counterclaims.

JURISDICTIONAL STATEMENT

9. Apple admits that Samsung's Counterclaims purport to be actions for patent infringement under the patent laws of the United States, and actions for declaratory relief under the Declaratory Judgment Act, the patent laws of the United States, the Lanham Act, California Business and Professions Code, the common law of trademarks

[1] For convenience and clarity, Apple's Answer uses the same headings as set forth in Samsung's Counterclaims. In so doing, Apple does not admit any of the allegations contained in Samsung's headings.

and unfair competition, and the law of unjust enrichment. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 9 of the Counterclaims.

10. Apple admits the allegations in Paragraph 10 of the Counterclaims.

11. Apple admits that this Court has personal jurisdiction over Apple for this action.

12. Apple admits, for purposes of this action only, that venue is proper in this District.

13. Apple admits the allegations in Paragraph 13 of the Counterclaims.

14. Apple admits the allegations in Paragraph 14 of the Counterclaims.

15. Apple admits the allegations in Paragraph 15 of the Counterclaims.

16. Apple admits the allegations in Paragraph 16 of the Counterclaims.

17. Apple admits the allegations in Paragraph 17 of the Counterclaims.

18. Apple admits the allegations in Paragraph 18 of the Counterclaims.

FACTUAL BACKGROUND

19. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 19 of the Counterclaims, and therefore denies the same.

20. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 20 of the Counterclaims, and therefore denies the same.

21. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 21 of the Counterclaims, and therefore denies the same.

22. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 22 of the Counterclaims, and therefore denies the same.

23. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 23 of the Counterclaims, and therefore denies the same.

24. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 24 of the Counterclaims, and therefore denies the same.

25. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 25 of the Counterclaims, and therefore denies the same.

26. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 26 of the Counterclaims, and therefore denies the same.

27. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 27 of the Counterclaims, and therefore denies the same.

28. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 28 of the Counterclaims, and therefore denies the same.

29. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 29 of the Counterclaims, and therefore denies the same.

30. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 30 of the Counterclaims, and therefore denies the same.

SAMSUNG'S INTELLECTUAL PROPERTY RIGHTS

31. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 31 of the Counterclaims, and therefore denies the same.

32. Apple admits the allegations in the first three sentences in Paragraph 32. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 32 of the Counterclaims, and therefore denies the same.

33. Apple admits the allegations in the first three sentences in Paragraph 33. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 33 of the Counterclaims, and therefore denies the same.

34. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 34 of the Counterclaims, and therefore denies the same.

35. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 35 of the Counterclaims, and therefore denies the same.

36. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 36 of the Counterclaims, and therefore denies the same.

37. Apple admits that the increase in usage of mobile device networks has increased demand for capacity and throughput, particularly in data-demanding applications such as video. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 37 of the Counterclaims, and therefore denies the same.

38. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 38 of the Counterclaims, and therefore denies the same.

39. Apple admits that Samsung's U.S. Patent Nos. 7,069,055, 7,079,871, 7,456,893, 7,577,460, and 7,698,711 purport to relate to generating and displaying time, viewing and transmitting images, playing music, and dividing of window displays on mobile devices.

40. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 40 of the Counterclaims, and therefore denies the same.

41. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 41 of the Counterclaims, and therefore denies the same.

42. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 42 of the Counterclaims, and therefore denies the same.

43. Apple admits the allegations in the first sentence in Paragraph 43 of the Counterclaims. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 43 of the Counterclaims, and therefore denies the same.

44. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 44 of the Counterclaims, and therefore denies the same.

45. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 45 of the Counterclaims, and therefore denies the same.

46. Apple denies the allegations in Paragraph 46 of the Counterclaims.

47. Apple admits that the '604 Patent is entitled "Turbo Encoding/Decoding Device and Method for Processing Frame Data According to QOS"; that the '604 Patent indicates that it was issued by the United States Patent and Trademark Office ("USPTO") on August 9, 2005; and that an uncertified copy of the '604 Patent is attached to the Complaint as Exhibit 1. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '604 Patent, and whether Exhibit 1 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 47 of the Counterclaims.

48. Apple admits that the '410 Patent is entitled "Apparatus and Method for Controlling a Demultiplexer and a Multiplexer Used for Rate Matching in a Mobile Communication System"; that the '410 Patent indicates that it was issued by the USPTO on May 23, 2006; and that an uncertified copy of the '410 Patent is attached to the Complaint as Exhibit 2. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '410 Patent, and whether Exhibit 2 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 48 of the Counterclaims.

49. Apple admits that the '055 Patent is entitled "Mobile Telephone Capable of Displaying World Time and Method for Controlling the Same"; that the '055 Patent indicates that it was issued by the USPTO on June 27, 2006; and that an uncertified copy of the '055 Patent is attached to the Complaint as Exhibit 3. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '055 Patent, and whether Exhibit 3 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 49 of the Counterclaims.

50. Apple admits that the '871 Patent is entitled "Portable Telephone and Method of Displaying Data Thereof"; that the '871 Patent indicates that it was issued by the USPTO on July 18, 2006; and that an uncertified copy of the '871 Patent is attached to the Complaint as Exhibit 4. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '871 Patent, and whether Exhibit 4 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 50 of the Counterclaims.

51. Apple admits that the '792 Patent is entitled "Interleaving Apparatus and Method for Symbol Mapping in an HSDPA Mobile Communication System"; that the '792 Patent indicates that it was issued by the USPTO on April 3, 2007; and that an uncertified copy of the '792 Patent is attached to the Complaint as Exhibit 5. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '792 Patent, and whether Exhibit 5 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 51 of the Counterclaims.

52. Apple admits that the '867 Patent is entitled "Apparatus and Method for Generating Scrambling Code in UMTS Mobile Communication System"; that the '867 Patent indicates that it was issued by the USPTO on April 22, 2008; and that an uncertified copy of the '867 Patent is attached to the Complaint as Exhibit 6. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '867 Patent, and whether Exhibit 6 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 52 of the Counterclaims.

53. Apple admits that the '001 Patent is entitled "Apparatus and Method for Channel Coding and Multiplexing in CDMA Communication System"; that the '001 Patent indicates that it was issued by the USPTO on June 10, 2008; and that an

uncertified copy of the '001 Patent is attached to the Complaint as Exhibit 7. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '001 Patent, and whether Exhibit 7 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 53 of the Counterclaims.

54. Apple admits that the '516 Patent is entitled "Method and Apparatus for Data Transmission in a Mobile Telecommunication System Supporting Enhanced Uplink Service"; that the '516 Patent indicates that it was issued by the USPTO on November 4, 2008; and that an uncertified copy of the '516 Patent is attached to the Complaint as Exhibit 8. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '516 Patent, and whether Exhibit 8 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 54 of the Counterclaims.

55. Apple admits that the '893 Patent is entitled "Method of Controlling Digital Image Processing Apparatus for Efficient Reproduction and Digital Image Processing Apparatus Using the Method"; that the '893 Patent indicates that it was issued by the USPTO on November 25, 2008; and that an uncertified copy of the '893 Patent is attached to the Complaint as Exhibit 9. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '893 Patent, and whether Exhibit 9 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 55 of the Counterclaims.

56. Apple admits that the '460 Patent is entitled "Portable Composite Communication Terminal for Transmitting/Receiving and Images, and Operation Method and Communication System Thereof"; that the '460 Patent indicates that it was issued by the USPTO on August 18, 2009; and that an uncertified copy of the '460 Patent is attached to the Complaint as Exhibit 10. Apple lacks knowledge or information

sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '460 Patent, and whether Exhibit 10 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 56 of the Counterclaims.

57. Apple admits that the '941 Patent is entitled "Method and Apparatus for Transmitting/Receiving Packet Data Using Pre-Defined Length Indicator in a Mobile Communication System"; that the '941 Patent indicates that it was issued by the USPTO on March 9, 2010; and that an uncertified copy of the '941 Patent is attached to the Complaint as Exhibit 11. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '941 Patent, and whether Exhibit 11 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 57 of the Counterclaims.

58. Apple admits that the '711 Patent is entitled "Multi-Tasking Apparatus and Method in Portable Terminal"; that the '711 Patent indicates that it was issued by the USPTO on April 13, 2010; and that an uncertified copy of the '711 Patent is attached to the Complaint as Exhibit 12. Apple lacks knowledge or information sufficient to form a belief as to whether Samsung is the current owner of all rights, title, and interest in the '711 Patent, and whether Exhibit 12 is a true and correct copy. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 58 of the Counterclaims.

APPLE'S ALLEGED CLAIMS AGAINST SAMSUNG

59. Apple admits the allegations in Paragraph 59 of the Counterclaims.

60. Apple admits the allegations in Paragraph 60 of the Counterclaims.

61. Apple admits that it owns the trade dress embodied in Apple's iPhone, iPhone 3G, iPhone 3GS, iPhone 4, iPod Touch, iPad, and iPad 2 products. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 61 of the Counterclaims.

62. Apple admits the allegations in Paragraph 62 of the Counterclaims.

63. Apple admits the allegations in Paragraph 63 of the Counterclaims.

64. Apple admits the allegations in Paragraph 64 of the Counterclaims.

65. Apple admits the allegations in Paragraph 65 of the Counterclaims.

66. Apple admits the allegations in Paragraph 66 of the Counterclaims.

67. Apple admits the allegations in Paragraph 67 of the Counterclaims.

FIRST CLAIM FOR RELIEF

(Infringement of the '604 Patent)

68. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 67 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 67 above, as if set forth fully herein.

69. Apple denies the allegations in Paragraph 69 of the Counterclaims.

70. Apple denies the allegations in Paragraph 70 of the Counterclaims.

71. Apple denies the allegations in Paragraph 71 of the Counterclaims.

SECOND CLAIM FOR RELIEF

(Infringement of the '410 Patent)

72. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 71 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 71 above, as if set forth fully herein.

73. Apple denies the allegations in Paragraph 73 of the Counterclaims.

74. Apple denies the allegations in Paragraph 74 of the Counterclaims.

75. Apple denies the allegations in Paragraph 75 of the Counterclaims.

THIRD CLAIM FOR RELIEF

(Infringement of the '055 Patent)

76. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 75 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 75 above, as if set forth fully herein.

77. Apple denies the allegations in Paragraph 77 of the Counterclaims.

78. Apple denies the allegations in Paragraph 78 of the Counterclaims.

79. Apple denies the allegations in Paragraph 79 of the Counterclaims.

FOURTH CLAIM FOR RELIEF

(Infringement of the '871 Patent)

80. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 79 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 79 above, as if set forth fully herein.

81. Apple denies the allegations in Paragraph 81 of the Counterclaims.

82. Apple denies the allegations in Paragraph 82 of the Counterclaims.

83. Apple denies the allegations in Paragraph 83 of the Counterclaims.

FIFTH CLAIM FOR RELIEF

(Infringement of the '792 Patent)

84. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 83 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 83 above, as if set forth fully herein.

85. Apple denies the allegations in Paragraph 85 of the Counterclaims.

86. Apple denies the allegations in Paragraph 86 of the Counterclaims.

87. Apple denies the allegations in Paragraph 87 of the Counterclaims.

SIXTH CLAIM FOR RELIEF

(Infringement of the '867 Patent)

88. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 87 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 87 above, as if set forth fully herein.

89. Apple denies the allegations in Paragraph 89 of the Counterclaims.

90. Apple denies the allegations in Paragraph 90 of the Counterclaims.

91. Apple denies the allegations in Paragraph 91 of the Counterclaims.

SEVENTH CLAIM FOR RELIEF

(Infringement of the '001 Patent)

92. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 91 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 91 above, as if set forth fully herein.

93. Apple denies the allegations in Paragraph 93 of the Counterclaims.

94. Apple denies the allegations in Paragraph 94 of the Counterclaims.

95. Apple denies the allegations in Paragraph 95 of the Counterclaims.

EIGHTH CLAIM FOR RELIEF

(Infringement of the '516 Patent)

96. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 95 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 95 above, as if set forth fully herein.

97. Apple denies the allegations in Paragraph 97 of the Counterclaims.

98. Apple denies the allegations in Paragraph 98 of the Counterclaims.

99. Apple denies the allegations in Paragraph 99 of the Counterclaims.

NINTH CLAIM FOR RELIEF

(Infringement of the '893 Patent)

100. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 99 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 99 above, as if set forth fully herein.

101. Apple denies the allegations in Paragraph 101 of the Counterclaims.

102. Apple denies the allegations in Paragraph 102 of the Counterclaims.

103. Apple denies the allegations in Paragraph 103 of the Counterclaims.

TENTH CLAIM FOR RELIEF

(Infringement of the '460 Patent)

104. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 103 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 103 above, as if set forth fully herein.

105. Apple denies the allegations in Paragraph 105 of the Counterclaims.

106. Apple denies the allegations in Paragraph 106 of the Counterclaims.

107. Apple denies the allegations in Paragraph 107 of the Counterclaims.

ELEVENTH CLAIM FOR RELIEF

(Infringement of the '941 Patent)

108. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 107 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 107 above, as if set forth fully herein.

109. Apple denies the allegations in Paragraph 109 of the Counterclaims.

110. Apple denies the allegations in Paragraph 110 of the Counterclaims.

111. Apple denies the allegations in Paragraph 111 of the Counterclaims.

TWELFTH CLAIM FOR RELIEF

(Infringement of the '711 Patent)

112. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 111 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 111 above, as if set forth fully herein.

113. Apple denies the allegations in Paragraph 113 of the Counterclaims.

114. Apple denies the allegations in Paragraph 114 of the Counterclaims.

115. Apple denies the allegations in Paragraph 115 of the Counterclaims.

THIRTEENTH CLAIM FOR RELIEF

(Declaration of Non-infringement of the '828, '002, '381, '915, '891, '607, '163, '129, 'D790, 'D334, 'D305, 'D087, 'D677, 'D270, and 'D889 Patents)

116. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 115 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 115 above, as if set forth fully herein.

117. Apple admits the allegations in Paragraph 117 of the Counterclaims.

118. Apple admits that it has alleged that certain Samsung products infringe the '828, '002, '381, '915, '891, '607, '163, '129, 'D790, 'D334, 'D305, 'D087, 'D677, 'D270, and 'D889 Patents. Apple further admits that the Samsung Counterclaimants have denied that their activities infringe the '828, '002, '381, '915, '891, '607, '163, '129, 'D790, 'D334, 'D305, 'D087, 'D677, 'D270, and 'D889 Patents and that the Samsung Counterclaimants' denial creates an actual controversy between the parties.

Except as expressly admitted, Apple denies the remaining allegations in Paragraph 118 of the Counterclaims.

119. Apple denies the allegations in Paragraph 119 of the Counterclaims.

FOURTEENTH CLAIM FOR RELIEF

(Declaration of Invalidity of the ’828, ’002, ’381, ’915, ’891, ’607, ’163, ’129, ’D790, ’D334, ’D305, ’D087, ’D677, ’D270, and ’D889 Patents)

120. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 119 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 119 above, as if set forth fully herein.

121. Apple admits that it has alleged that certain Samsung products infringe the ’828, ’002, ’381, ’915, ’891, ’607, ’163, ’129, ’D790, ’D334, ’D305, ’D087, ’D677, ’D270, and ’D889 Patents and that these patents are entitled to a presumption of validity. Apple further admits that the Samsung Counterclaimants have denied the validity of the ’828, ’002, ’381, ’915, ’891, ’607, ’163, ’129, ’D790, ’D334, ’D305, ’D087, ’D677, ’D270, and ’D889 Patents and that the Samsung Counterclaimants’ denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 121 of the Counterclaims.

122. Apple denies the allegations in Paragraph 122 of the Counterclaims.

FIFTEENTH CLAIM FOR RELIEF

(Declaration of No Federal False Designation of Origin Under 15 U.S.C. § 1125(a))

123. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 122 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 122 above, as if set forth fully herein.

124. Apple admits that it has alleged that certain Samsung products infringe the Apple iPhone Trade Dress, Apple iPhone 3G Trade Dress, Apple iPhone 4 Trade Dress, Apple iPad Trade Dress, and Apple iPad 2 Trade Dress. Apple further admits that the Samsung Counterclaimants have denied that their activities infringe the Apple iPhone Trade Dress, Apple iPhone 3G Trade Dress, Apple iPhone 4 Trade Dress, Apple iPad Trade Dress, and Apple iPad 2 Trade Dress and that the Samsung Counterclaimants' denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 124 of the Counterclaims.

125. Apple denies the allegations in Paragraph 125 of the Counterclaims.

126. Apple denies the allegations in Paragraph 126 of the Counterclaims.

127. Apple denies the allegations in Paragraph 127 of the Counterclaims.

128. Apple denies the allegations in Paragraph 128 of the Counterclaims.

SIXTEENTH CLAIM FOR RELIEF

(Declaration of Noninfringement of Trademark or Trade Dress)

129. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 128 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 128 above, as if set forth fully herein.

130. Apple admits that it has alleged that certain Samsung products infringe U.S. Registration Nos. 3,470,983, 3,457,218, and 3,475,327. Apple further admits that SEC and STA have denied that their activities infringe U.S. Registration Nos. 3,470,983, 3,457,218, and 3,475,327 and that SEC and STA's denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 130 of the Counterclaims.

131. Apple admits that it has alleged that certain Samsung products infringe U.S. Registration Nos. 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169,

3,886,197, and 2,935,038. Apple further admits that the Samsung Counterclaimants have denied that their activities infringe U.S. Registration Nos. 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169, 3,886,197, and 2,935,038 and that the Samsung Counterclaimants' denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 131 of the Counterclaims.

132. Apple denies the allegations in Paragraph 132 of the Counterclaims.

133. Apple denies the allegations in Paragraph 133 of the Counterclaims.

134. Apple denies the allegations in Paragraph 134 of the Counterclaims.

135. Apple denies the allegations in Paragraph 135 of the Counterclaims.

SEVENTEENTH CLAIM FOR RELIEF

(Declaration of Non-Dilution)

136. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 135 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 135 above, as if set forth fully herein.

137. Apple admits that it has alleged that the Samsung Counterclaimants' manufacture and distribution of certain products is likely to cause dilution by blurring of the famous Apple iPhone Trade Dress, Apple iPhone 3G Trade Dress, Apple iPhone 4 Trade Dress, Apple iPad Trade Dress, and Apple iPad 2 Trade Dress and that such actions constitute dilution in violation of Section 43(c) of the Lanham Act, 15 U.S.C. § 1125(c). Except as expressly admitted, Apple denies the remaining allegations in Paragraph 137 of the Counterclaims.

138. Apple denies the allegations in Paragraph 138 of the Counterclaims.

139. Apple denies the allegations in Paragraph 139 of the Counterclaims.

140. Apple denies the allegations in Paragraph 140 of the Counterclaims.

141. Apple denies the allegations in Paragraph 141 of the Counterclaims.

142. Apple denies the allegations in Paragraph 142 of the Counterclaims.

EIGHTEENTH CLAIM FOR RELIEF

(Declaration of Invalidity of the '983, '218, '327, '196, '642, '200, '685, '169, '197, and '038 Registrations and the '463, '838, '829, '869, and '118 Applications)

143. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 142 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 142 above, as if set forth fully herein.

144. Apple admits that it has alleged that certain Samsung products infringe U.S. Registration Nos. 3,470,983, 3,457,218, 3,475,327, 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169, 3,886,197, and 2,935,038. Apple further admits that the Samsung Counterclaimants have denied the validity of U.S. Registration Nos. 3,470,983, 3,457,218, 3,475,327, 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169, 3,886,197, and 2,935,038 and that the Samsung Counterclaimants' denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 144 of the Counterclaims.

145. Apple denies the allegations in Paragraph 145 of the Counterclaims.

146. Apple denies the allegations in Paragraph 146 of the Counterclaims.

NINETEENTH CLAIM FOR RELIEF

(Cancellation of the '983, '218, '327, '196, '642, '200, '685, '169, '197, and '038 Registrations) (15 U.S.C. §§ 1119 and 1064)

147. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 146 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 146 above, as if set forth fully herein.

148. Apple admits that it has alleged that certain Samsung products infringe U.S. Registration Nos. 3,470,983, 3,457,218, 3,475,327, 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169, 3,886,197, and 2,935,038. Apple further admits that the Samsung Counterclaimants have denied the validity of U.S. Registration Nos. 3,470,983, 3,457,218, 3,475,327, 3,886,196, 3,889,642, 3,886,200, 3,889,685, 3,886,169, 3,886,197, and 2,935,038 and that the Samsung Counterclaimants' denial creates an actual controversy between the parties. Except as expressly admitted, Apple denies the remaining allegations in Paragraph 148 of the Counterclaims.

149. Apple denies the allegations in Paragraph 149 of the Counterclaims.

150. Apple denies the allegations in Paragraph 150 of the Counterclaims.

TWENTIETH CLAIM FOR RELIEF

(Declaration of Nonviolation of California Business and Professions Code §17200, et seq.)

151. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 150 of the Counterclaims as though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 150 above, as if set forth fully herein.

152. Apple admits the allegations in Paragraph 152 of the Counterclaims.

153. Apple admits the allegations in Paragraph 153 of the Counterclaims.

154. Apple denies the allegations in Paragraph 154 of the Counterclaims.

155. Apple denies the allegations in Paragraph 155 of the Counterclaims.

156. Apple denies the allegations in Paragraph 156 of the Counterclaims.

TWENTY-FIRST CLAIM FOR RELIEF

(Declaration of Nonviolation of the Law of Unjust Enrichment)

157. Apple admits that the Samsung Counterclaimants restate and incorporate by reference each of the allegations in Paragraphs 1 through 156 of the Counterclaims as

though fully set forth herein. Apple repeats and re-alleges all the responses in Paragraphs 1 through 157 above, as if set forth fully herein.

158. Apple admits the allegations in Paragraph 158 of the Counterclaims.

159. Apple denies the allegations in Paragraph 159 of the Counterclaims.

160. Apple denies the allegations in Paragraph 160 of the Counterclaims.

161. Apple denies the allegations in Paragraph 161 of the Counterclaims.

162. Apple denies the allegations in Paragraph 162 of the Counterclaims.

PRAYER FOR RELIEF

Apple denies that the Samsung Counterclaimants are entitled to any relief sought by the Samsung Counterclaimants in their Prayer for Relief.

APPLE'S DEFENSES TO SAMSUNG'S COUNTERCLAIMS

Apple asserts the following defenses to Samsung's Counterclaims:

FIRST DEFENSE
(Non-Infringement)

Samsung is not entitled to any relief against Apple because Apple has not directly or indirectly infringed any valid claim of the Samsung Asserted Patents.

SECOND DEFENSE
(Invalidity)

One or more of the claims of the Samsung Asserted Patents are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and 112.

THIRD DEFENSE
(Limitation of Damages)

Samsung's right to seek damages is limited, including without limitation by 35 U.S.C. §§ 286 and 287.

FOURTH DEFENSE
(Authority to Practice and/or Unenforceability)

One or more of the Samsung Asserted Patents are unenforceable against Apple because of estoppel, laches, waiver, unclean hands, patent exhaustion, license/covenants not to assert, implied license/covenants not to assert, and/or other contractual or equitable doctrines. With respect to patent exhaustion, Samsung has contractually authorized chipset suppliers, specifically including but not limited to Intel as set out in the Counterclaims below, to manufacture chipsets that practice Samsung's patents. To the extent any of the Samsung Asserted Patents are substantially embodied in chipsets that Apple purchases from such authorized suppliers, these suppliers have made "authorized sales" of those chipsets to Apple that exhaust those patents, and Samsung is not entitled to enforce those patents against Apple. Moreover, to the extent that Samsung has contractually authorized (whether by license, covenant not to assert, or other grant of authority) the customers of chipset suppliers to use chipsets under the Samsung products, such customers (like Apple) are contractually entitled to do so. With respect to implied license/covenant not to assert, for over three years before it ever asserted the Samsung Asserted Patents, Samsung well knew that Apple was selling end products containing wireless telecommunications chipsets that Samsung claims practice the Samsung Asserted Patents. Indeed, Samsung annually has supplied billions of dollars of components for those Apple products and derived great economic benefit from doing so. Based on Samsung's conduct, Apple reasonably inferred that Samsung consented to its sales of end products containing chipsets that Samsung belatedly claims infringe the Samsung Asserted Patents, and Apple relied on Samsung's failure to assert those patents in developing and selling end products that incorporate those chipsets. Finally, with respect to its Declared-Essential Patents, Samsung has engaged in standard-setting misconduct, including without limitation Samsung's breach of its commitments to offer

FRAND license terms for the Declared-Essential Patents and Samsung's breach of its patent disclosure requirements or based on other circumstances.

FIFTH DEFENSE
(FRAND License)

To the extent that the Declared-Essential Patents are essential to any ETSI standard and to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed to the Declared-Essential Patents pursuant to Samsung's commitments to license its Declared-Essential Patents on FRAND terms; or, in the alternative, Apple has the irrevocable right to be licensed on FRAND terms under those patents.

SIXTH DEFENSE
(No Injunctive Relief)

To the extent that Samsung seeks injunctive relief for alleged infringement, the relief it seeks is unavailable because (i) Apple is entitled to sell products that incorporate chipsets that it purchases from Samsung licensed suppliers and (ii) seeking injunctive relief is contrary to its commitment to SSOs to license the Declared-Essential Patents on FRAND terms and Apple's resulting license or, in the alternative, irrevocable right to obtain a license by virtue of Samsung's FRAND commitments. In addition, the alleged injury to Samsung is not immediate or irreparable; and Samsung has an adequate remedy at law for any alleged injury.

APPLE INC.'S COUNTERCLAIMS IN REPLY

Plaintiff Apple, on personal knowledge as to its own acts, and on information and belief as to all others based on its own and its attorneys' investigation, alleges Counterclaims In Reply against Samsung Electronics Co., Ltd., Samsung Telecommunications America, LLC, and Samsung Electronics America, Inc. (collectively, "Samsung") as follows:

NATURE OF THE ACTION

1. Having failed to compete successfully with Apple's products (including its iPhone and iPad) by innovating and designing products that customers desire, Samsung has instead launched product after product that unlawfully misappropriate the distinctive designs and patented features that are hallmarks of Apple's success. These Counterclaims In Reply arise from Samsung's illegal and abusive assertions of the Samsung Asserted Patents in retaliation for Apple seeking to stop Samsung from imitating Apple's iPhone and iPad and to try to coerce Apple into tolerating Samsung's imitation.

2. In late summer 2010, Apple and Samsung began discussions related to Samsung's copying and infringement of Apple's intellectual property relating to its highly successful iPhone and iPad products. Specifically, the parties discussed Samsung's infringement of Apple's designs and of certain Apple patents that are not essential to practice any standard. During these discussions, Samsung for the first time claimed that Apple was required to make royalty payments for implementation of Samsung's Asserted Patents in Apple's products that comply with the UMTS wireless telecommunications standard. Samsung did this notwithstanding that it had well known for over three years that Apple's iPhone and later iPad incorporated chipsets enabling cellular communications capability that Apple purchased from independent suppliers, yet had never claimed Apple was infringing Samsung's patents.

3. After Samsung refused Apple's requests for Samsung to stop its copying, Apple sued Samsung in this Court, bringing claims that include patent, trade dress, and trademark infringement. In retaliation, Samsung brought a lawsuit (which it has since dismissed) and then counterclaimed against Apple for infringement of the Samsung Asserted Patents notwithstanding that (i) Samsung is not entitled to enforce such patents against Apple's sales of end products by virtue of Samsung's license agreements with

chipset suppliers, including Intel and Qualcomm and (ii) to the extent any of Samsung's alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed or, in the alternative, has the right to a FRAND license to practice Samsung's Declared-Essential Patents. It was not until several months after Samsung first sued Apple that it even offered Apple a license for its Declared-Essential patents. As a court in the Netherlands recently held, that offer was on terms that are manifestly not FRAND. The reasons why that is the case are discussed at Paragraphs 49 and 78 below.

4. Samsung's efforts to coerce Apple into tolerating Samsung's imitation have not been limited to the counterclaims here. Samsung has launched an aggressive, worldwide campaign to enjoin Apple from allegedly practicing Samsung's patents. Samsung has sued Apple for infringement and injunctions in no fewer than eight countries outside the United States. Indeed, Samsung's litigation campaign and other conduct related to its Declared-Essential Patents is so egregious that the European Commission recently has opened an investigation to determine whether Samsung's behavior violates EU competition laws. Apple brings these Counterclaims In Reply to halt Samsung's abuse and protect consumers, the wireless telecommunications industry, and Apple from further injury.

5. With respect to Apple's Counterclaims In Reply 1 through 24, Apple seeks declaratory judgment of non-infringement and invalidity to resolve the legal and factual questions raised by Samsung's accusation of infringement of the Samsung Asserted Patents and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated. Samsung's allegations of infringement concern UMTS-compliant chipsets that Apple buys from chipset suppliers and then incorporates in its end consumer products (including the iPhone and iPad) to provide cellular communication capability.

6. With respect to Apple's Counterclaims in Reply 25 to 29, Apple seeks to remedy Samsung's breaches of its ETSI IPR disclosure obligations and FRAND commitments, unlawful monopolization and violation of the California Unfair Competition law. Samsung abused standard-setting processes that are crucial to bringing pro-competitive benefits to innovators, telecommunications equipment and network suppliers, and end consumers alike by (i) deliberately and deceptively failing to disclose purportedly essential IPR during the standards setting process and (ii) intentionally concealing from the SSOs and designers and sellers of products implementing the UMTS standard that it would not in fact offer FRAND license terms for its Declared-Essential Patents to all UMTS implementers. Samsung then exploited the unlawfully-obtained monopoly positions that UMTS conferred on its claimed standards-essential technologies and breached its contractual FRAND commitments by (i) asserting patents that it knows, and a reasonable person would know, Samsung is precluded from asserting; and (ii) Samsung's untimely disclosures of its claimed essential IPR and failure to disclose that it did not intend to meet its FRAND commitments to ETSI and subsequent refusal to meet its FRAND obligations regarding patents that it claims to be essential to the UMTS standard. Samsung sued and then counterclaimed against Apple without even offering a FRAND license rate. Samsung's refusal to meet its FRAND obligations, motivated by Samsung's desire to infringe with impunity the designs and the non-essential patents on the functions that have differentiated Apple's products and made them so successful in the marketplace, is unfair, unreasonable, and discriminatory and violates Samsung's FRAND commitment.

PARTIES

7. Apple is a corporation organized under the laws of the State of California, and its principal place of business is in Cupertino, California.

8. Apple designs and markets a broad range of innovative products including portable digital music players (the iPod), mobile communications devices (the iPhone), and tablet computers (the iPad). Apple entities are and have been members of ETSI.

9. According to Samsung's Answer and Counterclaims, Samsung Electronics Co., Ltd. (referred to individually herein as "SEC") is a corporation organized and existing under the laws of the country of Korea having its corporate headquarters at 416 Maetan-3dong, Yeongtong-gu, Suwon-City, Cyeonggi-do, Korea 443-742. Samsung Telecommunications America, LLC (referred to individually herein as "STA") is a corporation organized and existing under the laws of the state of Delaware having its corporate headquarters at 1301 East Lookout Drive, Richardson, Texas 75082.

10. Samsung Electronics America, Inc. (referred to individually herein as "SEA") is a New York corporation with its principal place of business at 105 Challenger Road, Ridgefield Park, New Jersey 07660. On information and belief, SEA was formed in 1977 as a subsidiary of SEC and markets, sells, or offers for sale a variety of consumer electronics, including mobile communication devices and tablet computers. On information and belief, SEA also manages the North American operations of STA, Samsung Electronics Canada, and Samsung Electronics Mexico.

11. Samsung claims to own many patents that it asserts have been incorporated into various standards for wireless technologies, including the following Declared-Essential Patents: '604 Patent, '410 Patent, '792 Patent, '867 Patent, '001 Patent, '516 Patent, and '941 Patent.

JURISDICTION AND VENUE

12. The Court has jurisdiction over this counterclaim pursuant to the Federal Patent Act, 28 U.S.C. §§ 1338(a), 2201, and 2202, and pursuant to Section 4 of the Sherman Act, 15 U.S.C. § 4, and 28 U.S.C. §§ 1331, 1337.

13. The Court also has supplemental jurisdiction over the state law claims asserted in this counterclaim under 28 U.S.C. § 1367 because the state and federal claims arise from a common nucleus of operative facts.

14. Samsung has subjected itself to personal jurisdiction by counterclaiming against Apple in this District, and, in any event, Samsung is subject to personal jurisdiction because it places cellular communication devices in the stream of commerce knowing that such products will be sold in the state of California.

15. Venue is proper in this District under 28 U.S.C. § 1391 and § 1400(b). SEC, SEA, and STA transact business within this District and offer for sale in this District products that infringe Apple's patents. In addition, SEC, SEA and STA have counterclaimed against Apple in this District. Moreover, a substantial part of the events giving rise to the claim occurred in this District.

APPLE UMTS CHIPSET SUPPLIERS

16. Apple first introduced its iPhone in early 2007 and its iPad in Spring 2010. Both products incorporate UMTS baseband chipsets that Apple purchases from third party manufacturers. It is only through the incorporation of those chipsets that the iPhone and iPad allegedly practice the Declared-Essential Patents

17. Apple purchased all of its UMTS baseband chipsets for the iPhone and iPad from Infineon Technologies ("Infineon") until January 2011, when Intel Corporation ("Intel") completed its acquisition of Infineon's Wireless Solutions business (the part of Infineon that supplied chipsets).

18. Samsung has well known since the introduction of the iPhone that the iPhone (and later the iPad) incorporates chipsets that Apple purchases from independent chipset suppliers and that enable cellular communications functionality. Indeed, beginning with the introduction of the original iPhone, Samsung has supplied Apple with

billions of dollars a year in components for the iPhone and iPad. But it was not until late Summer 2010, that Samsung claimed for the first time that Apple was infringing any of Samsung's patents by selling the iPhone or iPad.

19. Samsung's assertion of infringement arose in the course of discussions between Apple and Samsung related to Samsung's continuing pattern of copying Apple's products and infringement of Apple's trade dress and trademarks as well as certain Apple patents that are not essential to practice any standard. The infringed Apple patents included those covering the distinctive designs and proprietary features that have been the hallmarks of Apple's highly successful products (including the iPhone and iPad).

20. Samsung has brought this action accusing Apple of infringing the Samsung Asserted Patents in utter disregard of the fact that, as described below, Samsung is precluded from enforcing those patents with respect to Apple end products that incorporate chipsets purchased from Samsung licensed suppliers, such as Intel and Qualcomm, by virtue of Samsung's license agreements with those chipset suppliers.

21. Samsung entered into a patent cross license agreement and amendments thereto with Intel (the "Samsung-Intel Agreement").

22. To the extent any of the Samsung Asserted Patents are substantially embodied in chipsets that Apple purchases from Intel, Intel has made "authorized sales" of those chipsets to Apple that exhaust those patents. Accordingly Samsung is not entitled to enforce those Samsung Asserted Patents against Apple.

STANDARDS IN THE WIRELESS COMMUNICATIONS INDUSTRY

23. Mobile wireless carriers offer the consumer access to their "networks" to enable the consumer to, among other things, place and receive calls and access e-mail, the Internet and a variety of services. The handsets sold by Apple and Samsung include a computer chipset that enables the handset to communicate with the carriers' networks.

Most handset designers -- including Apple and Samsung -- purchase those chipsets from third-party manufacturers.

24. To facilitate interoperability among the cellular networks and various cellular mobile devices, carriers, handset manufacturers, and chipset manufacturers, among others, participate in the development of industry technical standards that establish precise specifications for the essential components of the technology. Once these standards are established, competing manufacturers and competing carriers can offer their own products and services that are compliant with the standards.

25. Technical standards play a critical role in the development of wireless data and telecommunications technologies. In general, technical standards -- such as those for mobile wireless technology -- have the potential to encourage innovation and promote competition among telecommunications equipment suppliers and network providers in the wireless telecommunications industry. The technical specifications for most standards are published and broadly available. Product designers and manufacturers are thus more willing to invest heavily in the development of handsets or component parts because, so long as their products are compliant with the published technical standard, those products will operate effectively within the carrier networks and be compatible with other products from third parties.

26. Standards development also reduces costs for both suppliers and purchasers. For suppliers, standardization reduces the need in many instances to develop products to a particular purchaser's specifications. Accordingly, because a single product or product line may be sold to multiple purchasers and distributed more widely, manufacturing volumes increase and per unit costs decrease. Purchasers benefit from increased price competition among suppliers. Because many suppliers make standards-compliant products, switching suppliers typically does not require a substantial redesign of one's products or a substantial technical transfer to enable the new supplier to produce

compatible products. The lower "switching cost" intensifies competition among suppliers, leading to lower prices.

27. On the other hand, technical standardization also creates a "lock-in" effect and the risk of "patent hold-up." Although standards are the products of coordination and compromise among competitors, certain aspects of standards may be -- and often are -- claimed by patents. Before standardization, the royalty a patentee can earn from a patent license for its technology is constrained in part by the availability of alternative technical approaches to perform that function. If a standard requires a designer to employ that patented technology, however, those other technological approaches are no longer available substitutes and no longer constrain the patentee's ability to demand royalties far in excess of what is warranted by the intrinsic value of the technology. Moreover, that some end consumers might be able to choose among handsets that practice different telecommunications standards does nothing to mitigate the fact that a device manufacturer is locked into the standard that its device practices. As Samsung has explained in other litigation: "The payoff for owners of patents that are incorporated into the standard is substantial because the entire industry will need a license to the patents essential to the standard . . . ." First Amended Complaint at 5, *Samsung Elec. Co. v. InterDigital Commc'ns Corp.*, No. 07-0167 (D. Del. Sept. 14, 2007).

28. This phenomenon is compounded because designers, such as Apple, invest great resources developing innovative, new products that also comply with the technical standard. Even if there were an alternative standard, the costs and disruption associated with switching is typically prohibitively expensive. The designer that implements a standard thus becomes "locked-in." Left unconstrained, owners of patents that purportedly cover certain features within the standard can take advantage of lock-in and demand exorbitant royalties and other terms from the designers, knowing that it would be less costly for the designer to pay the excessive royalty or capitulate to unreasonable

terms rather than incur the cost of switching or face a risk of injunction. This dynamic is often called "patent hold-up."

29. As Samsung has recognized, "the whole point of a standard setting body is to create a standard that everyone can follow without fear of lawsuits that are going to stop the standard." Hearing Transcript at 87, *Certain 3G Wideband Code Division Multiple Access (WCDMA) Mobile Handsets and Components Thereof*, Inv. No. 337-TA-601 (ITC July 8, 2008). Accordingly, most SSOs have adopted IPR policies to address the problem of patent hold-up. These policies set forth requirements concerning, among other things: (a) disclosure of IPR that may claim any portion of the specifications of the standard in development; and (b) whether and to what extent parties holding purported essential IPR must commit to licensing these IPR on FRAND terms and conditions.

30. Timely disclosure of purportedly essential IPR is critical to ensuring that those participating in standards development can evaluate technical proposals with knowledge of the potential licensing costs that designers may incur when developing standards-compliant products.

31. Additionally, as set forth in greater detail below, the IPR policies at issue here require participants claiming to own essential IPR to commit to license those IPR on FRAND terms to any implementer of the standard. Those commitments grant implementers the right to practice claimed essential patents and preclude parties making FRAND commitments from seeking to enjoin parties from practicing the relevant standard. Participants in standards development rely on these contractual undertakings to ensure that the widespread adoption of the standard will not be hindered by IPR holders seeking to extract unreasonable royalties and terms from those implementing the standard.

32. Samsung itself has acknowledged, in other litigation, the crucial role that FRAND commitments play in ensuring that standards setting does not become a

mechanism for abusive practices and in protecting industry participants against exploitation by patentees that gain monopolies through the standard-setting process. First:

> Without certain rules . . . [SSOs] would be illegal trusts because [SSOs] are a forum in which competitors . . . determine which products they will and will not make. . . . To prevent patent owners from imposing monopolistic royalties and to mitigate the threat of a single patent owner holding up the industry, [SSOs] condition the standardization of proprietary technology upon the patent owner's promise to make the technology available to the public royalty-free or on [FRAND] terms.

First Amended Complaint at 5, *Samsung Elec. Co. v. InterDigital Commc'ns Corp.*, No. 07-0167 (D. Del. Sept. 14, 2007). Second:

> [I]n exchange for having its technology included in the standard, for having the [SSO] promote the standards worldwide, and for having the industry directed to use its patented technology, each [SSO] member trades away the right to refuse to license its intellectual property to anyone willing to pay FRAND terms. In short, the promise of FRAND licenses is the quid pro quo of the bargain struck between the [SSO] and the intellectual property owner.

Id. at 6.

33. Breaching FRAND commitments, as Samsung has done here, undermines the safeguards that SSOs put in place to guard against abuse. By seeking to unfairly exploit a patent's actual or purported incorporation into a standard, the patentee violates the very commitment that led to incorporation of that technology in the first place.

The Evolution of Mobile Wireless Telecommunications Standards

34. Mass marketing of cell phones began in the 1980s with phones that operated on analog networks. The two principal disadvantages of analog signals -- compared to the digital signals on which later generations of cell phone networking were based -- are that analog transmissions have "noise," creating signal loss and distortion, and analog networks are ill-equipped to handle high volumes of voice traffic or data transmissions.

35. The second generation of mobile wireless technology, commonly referred to as "2G," began the transition to digital technology. The rollout of 2G networks -- which used available bandwidth for voice traffic more efficiently than did analog and provided support for the data transmission necessary for paging and text messaging -- coincided with the proliferation of consumer mobile wireless sales.

36. 2G networks and advanced 2G networks, sometimes referred to as 2.5G networks, also began supporting more data-intensive applications, such as email, web browsing, and sending and receiving pictures by phone. The third generation ("3G") technologies were developed to support even more data-intensive operations commonly associated with smartphones like the iPhone, such as multimedia, more sophisticated web browsing, music and video downloading, and global positioning systems.

37. Nearly all mobile wireless carriers now support 2G technology, and in the United States 3G networks. As this is happening, fourth generation ("4G"), known as Long Term Evolution (LTE) for Global System for Mobile Communications ("GSM")-based networks, has been standardized and some carriers are beginning to introduce those networks.

38. The most widely implemented digital telecommunications standards worldwide are based on the GSM technology, a 2G standard. Development of GSM began in Europe with the formation of the Groupe Special Mobile within the European Conference of Postal and Telecommunications Administrations ("CEPT").

39. In 1988, at the urging of the European Commission, European national posts and telecommunications ministries formed the ETSI. ETSI, a non-profit SSO, is headquartered in France. In 1989, development of GSM was transferred to the auspices of ETSI, where standardization of GSM was completed.

40. Subsequent generations of the GSM standard have featured technical enhancements that permit greater data rates and increased voice capacity. Many GSM

carriers have adopted a technology known as GSM Packet Radio Service ("GPRS"), 2.5G technology. In addition, a technology known as Enhanced Data Rates for GSM Evolution ("EDGE") is employed by most carriers as an add-on to the GPRS to achieve higher data rates.

41. The third generation of the GSM family of standards is the UMTS, which employs wide-band CDMA ("WCDMA") technology. The UMTS standard was designed to efficiently support significantly increased speeds and capacity over limited spectrum bandwidth, thereby enabling new and enhanced services and applications such as mobile e-commerce, broadcast television, position location, and mobile multimedia web browsing, including music and video downloads.

42. UMTS – the third generation of GSM, the world's most-widely adopted telecommunications standard family -- has been standardized by 3GPP and is the most widely adopted 3G telecommunication standard worldwide. 3GPP is a collaboration of six SSOs from around the world, including ETSI, the Telecommunications Technology Association ("TTA"), the Association of Radio Industries and Businesses ("ARIB"), the Alliance for Telecommunications Industry Solutions ("ATIS"), the China Communications Standards Association ("CCSA"), and the Telecommunication Technology Committee ("TTC"). 3GPP promotes global convergence in the design of mobile phone systems based on GSM by producing globally-applicable specifications for those systems that SSOs can incorporate into their standards. Ultimately, each member organization formally adopts the 3GPP technical specifications as standards. 3GPP's initial mission was to develop a 3G system specification, but having met that goal it now develops successor specifications, including LTE.

43. Cellular technology has continued to develop. Driven by demand for an increasing number of wireless applications and improved quality of existing applications,

carriers wish to offer newer technologies that provide ever-increasing bandwidth supporting more advanced applications such as video and multimedia applications.

SAMSUNG'S DELIBERATE NON-DISCLOSURE OF AND FALSE COMMITMENTS CONCERNING ITS PURPORTED ESSENTIAL INTELLECTUAL PROPERTY

44. Because SSOs -- including 3GPP and its organizational partners -- purportedly incorporated Samsung's patented technology into the UMTS standard, unless constrained, Samsung has the ability to demand and potentially extract exorbitant royalties and unreasonable terms for patents it asserts are essential to those standards. To encourage its technologies to be incorporated into the standard and to avoid the SSO's consideration of the cost of standardizing purportedly patented technology, Samsung deliberately and deceptively failed to disclose during the standard-setting process IPR that it now claims to be essential to UMTS. In fact, one or more named inventors on the application for the concealed patent or other Samsung personnel frequently participated in the relevant Working Group, championed Samsung's technical proposal, and affirmatively steered 3GPP to standardize technology that Samsung now claims to be covered by its patents. Moreover, consistent with its objective to cause 3GPP to standardize the relevant technology through concealment and then take advantage of locked-in standard implementers to obtain exorbitant royalties and other license terms, Samsung did not intend to meet its FRAND commitments, but never told the 3GPP or its organizational partners that, and in fact represented just the opposite as described below. Samsung disclosed certain of its IPR only after the relevant standard or standard specification was finalized.

45. For standards developed under the 3GPP umbrella, participants, such as Samsung, were required to follow the IPR Policy of the organizations in which it held membership. Third Generation Partnership Project (3GPP) Partnership Project

Description 2 - 4 (December 1998), at 46. As a member of ETSI, therefore, Samsung was bound to follow the ETSI IPR Policy in connection with all of its relevant activities.

46. Samsung deliberately and deceptively concealed certain of its IPR during the standard-setting process at the same time that it was aggressively advocating for 3GPP to standardize technologies that it later claimed were covered by its Declared-Essential patents.

47. Samsung's abuse of the standards-setting process went far beyond untimely disclosure of its IPR. Samsung had first committed to license its Declared-Essential Patents on FRAND terms on December 14, 1998. (*See* Paragraph 59, *supra*.) Samsung's subsequent concealments of its IPR was accompanied by its intentional failure to disclose to the 3GPP that it would not offer to all UMTS implementers FRAND license terms for each respective Declared-Essential Patent. That is, Samsung intended not to abide by is prior explicit written commitment to license only on terms that would preclude it from exploiting the "hold-up" power it now abusively seeks to wield.

48. Samsung's deliberate and deceptive failures to disclose its Declared-Essential Patents and its unwillingness to offer FRAND terms, despite its previous written representation that it would do so, were intended to and did cause 3GPP to incorporate into the UMTS standard technology that Samsung now claims is covered by its Declared-Essential Patents. Had Samsung timely disclosed that it had relevant IPR, that it would not offer FRAND license terms to all those implementing the standard, and that it would take the position that parties implementing the standard were not entitled to practice its Declared-Essential Patents, 3GPP would have decided to standardize an alternative technology to perform the relevant function. Alternatively, 3GPP would have continued to leave the relevant function out of the standard, in which case implementers would have been free to choose various alternative technologies to perform that function

and 3GPP would have been free to continue to evaluate competing alternative technologies for potential standardization in future iterations of the standard.

49. Samsung has in fact violated its FRAND commitments by counterclaiming against Apple for infringement and seeking to enjoin Apple from selling its standards-compliant products, notwithstanding that to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed to any valid patents covering those alleged inventions or, in the alternative, has the right to a FRAND license to Samsung's Declared-Essential Patents and failing even to offer FRAND license terms. Indeed, on October 14, 2011, The Hague District Court in the Netherlands found Samsung's attempt to enjoin sales of Apple products based on declared essential patents entirely improper where Samsung has failed to engage in *bona fide* negotiations over FRAND license terms and has offered only terms that are manifestly not FRAND.

50. To facilitate its standard setting activity, ETSI promulgated an IPR policy, set forth in Annex 6 of its Rules of Procedure.

51. Clause 4 of the policy requires, among other things, that members timely disclose to the organization any IPR they own that may be essential to standards that have been developed or are being developed. Participants in ETSI standard development understand that this provision requires disclosure of all IPR that they believe might be essential to standards under consideration. Clause 4 requires in particular that a participant submitting a technical specification to ETSI, as Samsung did, make ETSI aware of any IPR that might be essential if that proposal is adopted. Clause 4.1 states:

> [E]ach MEMBER shall use its reasonable endeavors, in particular during the development of a STANDARD or TECHNICAL SPECIFICATION where it participates, to inform ETSI of ESSENTIAL IPRs in a timely fashion. In particular, a MEMBER submitting a technical proposal for a STANDARD or TECHNICAL SPECIFICATION shall,

> on a bona fide basis, draw the attention of ETSI to any of that MEMBER's IPR which might be ESSENTIAL if that proposal is adopted.

Under ETSI's IPR policies, the term "IPR" is defined to include patent applications as well as issued patents:

> "IPR" shall mean any intellectual property right conferred by statute law including applications therefore other than trademarks.

52. Clause 6 of ETSI's IPR policy governs the availability of licenses to essential IPR. In relevant part, Clause 6.1 states:

> When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory [FRAND] terms and conditions under such IPR to at least the following extent:
>
> • MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;
>
> • sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
>
> • repair, use, or operate EQUIPMENT; and
>
> • use METHODS.
>
> The above undertaking may be made subject to the condition that those who seek licenses agree to reciprocate.

53. If an owner of an essential IPR refuses to undertake a FRAND commitment with respect to that IPR, then, as provided in Section 8 of the ETSI IPR Policy, ETSI may suspend work on relevant parts of the standard or redesign the standard to render the IPR non-essential.

54. ETSI's IPR Policy was designed to benefit all ETSI members, as well as all other parties that implement an ETSI standard. In particular, the stated objective of the policy, described in Clause 3.1, is to "reduce the risk" to those implementing the

standards or other technical specifications "that investment in the preparation, adoption and application of the STANDARDS could be wasted as a result of an ESSENTIAL IPR for a STANDARD or TECHNICAL SPECIFICATION being unavailable." The IPR Policy specifies that it "shall be governed by the laws of France." Clause 12.

55. During all times relevant to these allegations, Samsung has been a member of ETSI. Samsung actively participated in 3GPP's development of the UMTS standard. As a result of its membership in ETSI and participation in 3GPP's standard-setting process for UMTS, Samsung was and is bound by the ETSI Rules of Procedure, including the ETSI IPR Policy. As was required by the ETSI IPR policy, Samsung submitted declarations to ETSI promising to license its Declared-Essential Patents on FRAND terms. See infra ¶¶ 59, 63.

56. Samsung has represented to Apple, and has alleged in its Counterclaims here, that it owns several patents that are essential to the UMTS standard.

1. Samsung's Deliberate Non-Disclosure of IPR During the Standard-Setting Process

57. Samsung deliberately and deceptively failed to disclose the existence of its claimed IPR during the standard-setting process while time and again advocating aggressively for adoption into the standard technologies that it believed were covered by its Declared-Essential Patents, all the time intentionally concealing that fact from 3GPP and its members. Samsung personnel (including named inventors on applications for the concealed patents) frequently participated in the relevant Working Groups and steered the groups to adopt relevant technology into the standard. The reason for Samsung's intentional failures to disclose its IPR are clear: it knew that by doing so and by simultaneously and intentionally failing to disclose that it would not offer FRAND license terms for each respective Declared-Essential Patent to all implementers of the standard, it would induce 3GPP to adopt the technologies that it claims are covered by its

Declared-Essential Patents asserted here. For each of the Declared-Essential Patents, Samsung intentionally failed to disclose its IPR:

(a) Samsung asserts that the '516 patent, which purports to claim a "method and apparatus for data transmission in a mobile telecommunication system supporting enhanced uplink service," is essential to specification 25.214 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '516 patent, based on the filing of a related Korean patent application, is June 9, 2004. In May 2005, Juho Lee, one of the inventors of the '516 patent made a presentation to a 3GPP Working Group in connection with a Samsung change request that included the technology on which Samsung was pursuing a patent. That technology was included in the version of the standard adopted in June 2005. Samsung, however, did not disclose to ETSI the existence of its purported IPR until a year later, in May 2006.

(b) Samsung asserts that the '941 patent, which purports to claim a "method and apparatus for transmitting/receiving packet data using pre-defined length indicator in a mobile communication system," is essential to the UMTS standard, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '941 patent, based on the filing of a related Korean patent application, is May 4, 2005. That same month Samsung authored a change request that included the technology on which Samsung was pursuing a patent and presented it to a 3GPP Working Group. Inventors Himke van der Velde and Gert-jan van Lieshout attended that meeting. That technology was included in the version of the standard adopted in June 2005. Samsung, however, did not disclose to ETSI its purported IPR until August 2007.

(c) Samsung asserts that the '001 patent, which purports to claim a "Apparatus and Method for Channel Coding and Multiplexing in CDMA Communication System," is essential to specification 25.212 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '001 patent, based on the filing of the U.S. patent application, is June 25, 1999. A few weeks later, in July 1999, Beongjo Kim and Min-Goo Kim, two of the named inventors, attended a meeting at which a Samsung proposal was made to a 3GPP Working Group in connection with a change request that included the technology on which Samsung was pursuing a patent. That technology was included in the version of the standard adopted in October 1999. Samsung, however, did not disclose to ETSI its purported IPR until September 19, 2003.

(d) Samsung asserts that the '410 patent, which purports to claim an "Apparatus and Method for Controlling a Demultiplexer and a Multiplexer used for Rate Matching in a Mobile Communication System," is essential to specification 25.212 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '410 patent is July 8, 1999. On that date, inventor

Min-Goo Kim of Samsung emailed the Working Group to explain and provide a copy of a Samsung proposal related to a unified rate matching scheme. A few days later, Samsung made several proposals to the 3GPP Working Group related to rate matching. In August, Samsung collaborated with LGIC to submit another proposal on rate matching. Despite this active involvement, Samsung did not reveal that it had any IPR covering its proposals. The technology identified in the Samsung / LGIC proposal was adopted and included in a version of the standard that was adopted in October, 1999. Samsung, however, did not disclose to ETSI its purported IPR until September 19, 2003.

(e) Samsung asserts that the '604 patent, which purports to be a "Turbo Encoding / Decoding Device and Method for Processing Frame Data According to QoS," is essential to specification 25.212 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '604 patent is March 31, 1998. At the Working Group Meeting from August 30 to September 3, 1999, Ericsson submitted two technical proposals which relate to a proposal for the "Transport Block Concatenation and Code Block Segmentation" that Samsung now alleges is covered by the '604 patent. Samsung participated in the meetings with several representatives, including two of the three inventors named in the '604 Patent (Lee Hyeon Woo and Park Chang Soo). Despite the participation of two inventors nearly 18 month after the filing of the priority application and nearly 6 month after the filing of the present patent application, Samsung failed to disclose that it pursued in parallel a patent application it now claims covers the addition to the standard adopted during the Working Group meeting. The technology identified in the Ericsson proposals was included in a version of the standard that was adopted in June, 1999. Samsung, however, did not disclose to ETSI its purported IPR until September 19, 2003.

(f) Samsung asserts that the '792 patent, which purports to be an "Interleaving Apparatus and Method for Symbol Mapping in an HSDPA Mobile Communication System," is essential to specification 25.212 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the '792 patent is March 21, 1998. Beginning in April 2001 and continuing for months thereafter, Samsung presented various proposals related to symbol mapping to the 3GPP Working Group. Different combinations of the named inventors of the '792 patent were present at all the meetings, including Ginkyu Choi, Hunkee Kim, Yong Suk Moon and Jaeseung Yoon. Finally in February 2002, Samsung joined with Siemens and Motorola in proposing a symbol mapping technology that was ultimately approved. The technology identified in this proposal was included in a version of the standard that was adopted in June 2002. Samsung, however, did not disclose to ETSI its purported IPR until July 24, 2008.

(g) Samsung asserts that the '867 patent, which purports to be an "Apparatus and Method for Generating Scrambling Code in UMTS Mobile Communication System," is essential to specification 25.213 of UMTS, yet Samsung concealed the existence of its IPR during the standard-setting process. In particular, the claimed priority date for the

> '867 patent is July 7, 1999. The 3GPP Working Group began discussing scrambling codes as early as April, 1999 when Nokia made several proposals. In July, 1999, a week after the '867 priority date, Samsung made two proposals to the Working Group regarding scrambling codes but failed to disclose any IPR despite the fact that one of the named inventors, on the '867 patent, Jaeyoel Kim, transmitted one of these proposals to the members of the Working Group in advance of the meeting. The technology identified in one of Samsung's proposals was included in a version of the standard that was adopted at a meeting in April, 1999. Samsung, however, did not disclose to ETSI its purported IPR until September 19, 2003.

58. Samsung's non-disclosure excluded viable alternative technologies from the relevant Input Technology Markets. Had Samsung properly disclosed the existence of its IPR and its unwillingness to abide by FRAND obligations with respect to such IPR, 3GPP would have decided to standardize an alternative technology to perform the relevant function. Alternatively, 3GPP would have continued to leave the relevant function out of the standard, in which case implementers would have been free to choose various alternative technologies to perform that function and 3GPP would have been free to continue to evaluate competing alternative technologies for potential standardization in future iterations of the standard. In either case, but for Samsung's non-disclosures, alternative viable technologies would not have been excluded from the relevant Input Technology Market. For each of the Declared-Essential Patents asserted here, 3GPP had multiple viable alternatives to standardizing the technology Samsung now claims is covered by its patents:

> (a) The '516 patent relates to a means of scaling power in a UMTS network ("Power Control Scaling Technology"). Power Control Scaling Technology addresses the situation where the power that the handset determines it needs exceeds the amount that has been allocated to the handset. In those situations, the power requirement for the handset needs to be scaled down so that it does not exceed the power level allocated to the handset. The '516 patent describes a method for scaling down enhanced data channels (E-DCHs), and not other dedicated data channels (DCHs). The Power Control Scaling Technology identified in the '516 patent was not the only available Power Control Scaling Technology. In fact, Samsung itself submitted a document to the Working Group that reveals alternatives. The Samsung submission was entitled "TFC selection across E-DCH and DCH," (R1-040697) and was prepared for the 3GPP TSG-RAN WG1 Rel-6 Ad-Hoc Meeting, June 21 – 24, 2004. That document indicates that there were alternative technological options to

address the situation describe above included (a) not sending data over the E-DCH; (b) sending data for E-DCH with the remaining power even if it is not enough; and (c) scaling down equally the transmission power for DCH and E-DCH. Accordingly, there were viable alternatives the Working Group could have adopted.

(b) The '941 patent relates to how frames of data are segmented into smaller pieces when needed for transmission, and then reassembled at a receiver in the radio link control (RLC) layer portion of the UMTS device. When data frames are sent in the RLC layer, they have a data portion and a header portion. The header has several fields including a control bit, called an "E-bit," that indicates whether data or more control information follows the E-bit. The '941 patent relates to a method for allowing a base station optionally to cause the base station and a mobile station to agree to interpret what the E-bit is signaling in a different way in the special case of Voice over IP (VoIP) data frames ("VoIP Header Technology"). The purpose of VoIP Header Technology is to improve headers for VoIP data frames.

The VoIP Header Technology identified in the '941 patent was not the only VoIP Header Technology available to the Working Group. Qualcomm had identified the opportunity to alter header information in this special case of VoIP data frames, and it presented alternative technology approaches for handling VoIP data. The first Qualcomm proposal was entitled "L2 considerations for VoIP Support" (R2-021645) and was prepared for the 3GPP TSG-RAN WG2 Meeting #43, August 15 – 20, 2004. The second Qualcomm proposal was entitled "L2 Optimizations for VoIP" (R2-050969) and was prepared for the 3GPP TSG-RAN WG2 Meeting #46bis, April 4 – 8, 2005. Moreover, the efficiency gain from the VoIP Header Technology is minimal. Accordingly, there were viable alternatives the Working Group could have adopted.

(c) The '001 patent relates to a coding and multiplexing processing path for processing content from different sources that have different transmission needs, such as uploading a video and having a voice call ("Transport Channel Multiplexing Technology"). In the relevant specification, the UMTS network could employ multiple dedicated physical data channels (DPDCHs) to send this data to improve the data rate. The processing chain includes coding and multiplexing data streams, radio frame segmenting the data into 10 msec blocks, using rate matching to get the desired number of bits, multiplexing different paths, and physical channel segmenting the resulting data into different physical channels. The Transport Channel Multiplexing Technology identified in the '001 patent was not the only available Transport Channel Multiplexing Technology. The Transport Channel Multiplexing Technology identified in the '001 patent was for use with multiple DPDCHs, but as an alternative, the Working Group could have adopted a technology that used only one DPDCH. In technical specification 25.213, Table 0, there are three "cases" of operation, only one of which employs multiple DPDCHs, and the specification indicates that these are maximum numbers of channels. Further, the processing performed by what the '001 patent calls

"radio frame matchers" and a multiplexer could be accomplished with a technology that made use of parallel coding paths and no multiplexer.

Many of the '001 patent claims include a limitation to using "filler bits." Working Group participant Per Narvinger of Ericsson suggested in an email of June 30, 1999 that the use of filler bits was unnecessary. Further, in an email dated March 16, 1999, before Samsung's patent filing, Tim Moulsley of Philips indicated that different bits to be divided could be handled by alternative technological approaches, including adding filler bits, or alternatively by adjusting the number of bits in the channel coding to make sure the output of the coder divided evenly without remainder. These emails circulated to the Working Group participant list.

Other '001 patent claims relate to an approach to physical channel segmentation. On June 29, 1999 participant Anu Virtanen of Nokia suggested alternatives to Samsung's proposed method, including proposing a method with interleaving. This email circulated to the Working Group participant list. In technical specification 25.212, interleaving follows physical channel segmentation, but alternatively, these steps could have been combined. Accordingly, there were viable alternatives the Working Group could have adopted.

(d) The '410 patent relates to a means of rate matching ("Rate Matching Technology"). In order to minimize errors, UMTS networks introduce redundancy into the radio transmissions. At times, to satisfy bandwidth limitations, some of the redundancy needs to be removed (the removal is referred to as puncturing). Rate Matching Technology defines the redundancy and also the puncturing methods. The Rate Matching Technology identified in the '410 patent was not the only available Rate Matching Technology. In fact, Nortel as well as Fujitsu and Siemens jointly, submitted proposals for Rate Matching Technology that could have been adopted. The Nortel proposal was entitled "Proposal for rate matching for Turbo Codes" (R1-99467) and was prepared for the TSG-RAN WG1 Meeting #4. The Fujitsu and Siemens proposal was entitled "Universal rate matching method for up/downlink and Turbo/convolutional coding" (R1-99910) and was prepared for the TSG-RAN WG1 Meeting #6. Accordingly, there were viable alternatives the Working Group could have adopted.

(e) The '604 patent relates to a means of transport block concatenation ("Block Concatenation Technology"). In a UMTS network, collections of bits are referred to as frames (or blocks). Block Concatenation Technology combines small blocks to create larger ones, and the combined blocks are then turbo-encoded. The Block Concatenation Technology identified in the '604 patent was not the only available Block Concatenation Technology available to the Working Group to vary the size of the blocks input to the turbo coder. For example, as shown by an article written by several Siemens employees in 1995, alternative technologies have existed for many years. *See* Boemer, L. et al., "A CDMA Radio Link with 'Turbo-Decoding': Concept and Performance Evaluation," *Personal, Indoor and Mobile Radio Communications, Sixth IEEE International Symposium on Wireless: Merging onto the Information Superhighway*, Vol. 2, at 788-793 (Sept. 1995), which describes the

concatenation of frames that are then turbo-encoded. A similar scheme for concatenating and turbo-encoding blocks is described in ETSI TR 101 146 v.3.0.0 (December 1997). Yet another alternative to the Block Concatenation Technology identified in the '604 patent is described in Valenti, M. et al., "Variable Latency Turbo Codes for Wireless Multimedia Applications," *Proceedings of the International Symposium on Turbo Codes*, at 216-219 (Sept. 1997). Valenti discloses varying the block size of the turbo encoder directly, without requiring concatenation of frames into superframes due to "the tradeoff between frame/interleaver size and performance." *Id.* at 216. Also, the '604 patent requires performing block concatenation prior to turbo encoding. However, the Working Group could have avoided the '604 patent by choosing to reverse that order and instead perform encoding prior to block concatenation. Such an ordering is feasible as is demonstrated by its use in the IEEE 802.11a-1999(R2003) standard, which was adopted in 1999. Accordingly, there were viable alternatives the Working Group could have adopted.

(f) The '792 patent relates to a means of interleaving ("Interleaving Technology"). Interleaving technology has existed for many years as a way to minimize transmission errors. Interleaving technology "shuffles" the transmitted bits and reassembles them. In so doing, it maximizes the chances that even if some bits are lost, the reassembled data will be sufficiently recognizable. In the UMTS high speed downlink shared channel (HS-DSCH), a particular type of interleaving is used. The Interleaving Technology identified in the '792 patent was not the only available Interleaving Technology. In fact, Siemens and Nokia submitted a Interleaving Technology proposals that the 3GPP Working Group could have adopted for HS-DSCH. An example of a Nokia proposal is the submission entitled "Further considerations of channel interleaver modification for HSDPA" (R1-011227) prepared for TSG-RAN WG1 Meeting #22, November 9 – 13, 2001. An example of a Siemens proposal is the submission entitled "Physical Layer Hybrid ARQ Functionality for HSDPA" (R1-020029) prepared for TSG-RAN WG1 Meeting #23, January 8 – 11, 2002. Accordingly, there were viable alternatives the Working Group could have adopted.

(g) The '867 patent relates to a means of generating and using scrambling codes in UMTS networks ("Scrambling Code Technology"). Scrambling Code Technology is used to add a unique code to a transmitted signal that only the target base station and handset recognize. The Scrambling Code Technology identified in the '867 patent was not the only available Scrambling Code Technology. In fact, Ericsson submitted a Scrambling Code Technology proposal that the 3GPP Working Group could have adopted. The Ericsson proposal was entitled "Multiple Scrambling Codes" (TSGR1#5(99)724 and was prepared for TSG-RAN WG1 Meeting #5, June 1 – 4, 1999. Accordingly, there were viable alternatives the Working Group could have adopted.

2. Samsung's FRAND Deceit

59. Samsung has submitted declarations to ETSI committing to irrevocably license the Declared-Essential Patents on FRAND terms pursuant to Clause 6.1 of ETSI's

IPR policy. By letter dated December 14, 1998, signed by Young Ky Kim on behalf of Samsung Electronics Corporation, addressed to ETSI SMG2, Samsung made a general FRAND Commitment, "with regard to the W-CDMA technology being elaborated by ETSI as a standard for the UMTS Terrestrial Radio Access (UTRA) FDD Mode" that it was "prepared to grant licenses to its essential IPRs on a fair, reasonable, and non-discriminatory basis in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy." That declaration did not include references to any particular IPR. Instead, by its submission Samsung promised to license on FRAND terms all Samsung IPR essential to the specified standard, which encompasses the technologies that Samsung claims to be covered by the Declared-Essential Patents that Samsung asserts in this action, i.e., the '516 patent, the '941 patent, the '001 patent, the '410 patent, the '604 patent, the '792 patent and the '867 patent.

60. Samsung's failure to inform 3GPP that, contrary to this 1998 undertaking, it in fact would not meet its commitments under its 1998 FRAND declaration was intentional and made with deceptive intent in order to induce 3GPP to include in the UMTS standard technologies that Samsung claims are covered by Samsung's Declared-Essential Patents. Samsung's objective during the 3GPP's consideration of the relevant the input technologies was first to cause those technologies to be standardized through its advocacy for their adoption and simultaneous deceit as described above, and then to take advantage of the lock-in effect by demanding exorbitant royalties or other license terms that were unfair, unreasonable, and/or discriminatory, which objective was flatly inconsistent with its prior explicit FRAND undertaking to the ETSI.

61. Combined with its advocacy for adoption of the subject technologies and the deliberate concealment of IPR for each of the Declared-Essential Patents during the standardization process, Samsung's concealment of its true intention not to offer FRAND terms to all those implementing the standard -- despite its prior written commitment to

the contrary -- induced 3GPP to standardize each of the technologies that Samsung claims is covered by the Declared-Essential Patents. Had Samsung disclosed its IPR and its true intention not to offer FRAND license terms for each Declared-Essential Patent, 3GPP would not have standardized the input technologies that Samsung now claims to be covered by each Declared-Essential Patent. Rather, 3GPP would have decided either to standardize an alternative technology to perform the relevant function or continued to leave the relevant function out of the standard, in which case implementers would have been free to choose various alternative technologies to perform that function and 3GPP would have been free to continue to evaluative competing alternative technologies for potential standardization in future iterations of the standard.

62. Because, during the standardization process relevant to each of the input technologies that Samsung now claims to be covered by a Declared-Essential Patent Samsung intentionally concealed that it would not abide by its 1998 written FRAND declaration and in fact intended not to offer FRAND terms, 3GPP and its members relied on that 1998 declaration and Samsung's continuing obligations there under in entertaining Samsung's technology proposals (infra ¶ 57) and in entertaining Samsung's aggressive promotion of its proposals for standardization and ultimately agreeing to standardize the technologies that Samsung claims are covered by its patents.

63. Years later, after standardization of the relevant technologies, Samsung submitted false IPR Declarations including references to specific patents and patent applications, including the Declared-Essential Patents Samsung asserts in this action. In particular:

> (a) On behalf of Samsung Electronics Corporation Kyong-Joon Chun, Executive Vice President signed an IPR Information and Licensing Declaration on September 19, 2003 that Samsung submitted to ETSI. Annex 2 to that Declaration includes the U.S. Patent application that became the '410 Patent (page 3 of 21), the U.S. Patent application that became the '604 Patent (page 12 of 21), the U.S. Patent application that became the '001 Patent (page

> 15 of 21), and the U.S. Patent application that became the '867 Patent (page 15 of 21).
>
> (b) On behalf of Samsung Electronics Corporation Seung Gun, Park, Vice President signed an IPR Information and Licensing Declaration May 15, 2006 that Samsung submitted to ETSI. Annex 2 to that Declaration includes the U.S. Patent application that became the '516 Patent (page 9 of 17).
>
> (c) On behalf of Samsung Electronics Corporation Seung Gun, Park, Vice President signed an IPR Information and Licensing Declaration August 7, 2007 that Samsung submitted to ETSI. Annex 2 to that Declaration includes the U.S. Patent application that became the '941 Patent (page 4 of 5).
>
> (d) On behalf of Samsung Electronics Corporation Seung Gun, Park, Vice President signed an IPR Information and Licensing Declaration July 24, 2008 that Samsung submitted to ETSI. Annex 2 to that Declaration includes the '792 Patent (page 5 of 5).

In each of the four declarations above, Samsung reconfirmed its 1998 written undertaking, stating that "The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licenses under the IPRs on terms and conditions which are in accordance with clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL."

64. Each of the these declarations were also deliberately contrary to Samsung's undisclosed true intention not to offer FRAND terms for the Declared-Essential Patents. Each written undertaking nevertheless constitutes a promise that all interested parties are entitled to license the specified claimed standards-essential patents on FRAND terms, foreclosing the patentee from claiming infringement of its patents or seeking to obtain an injunction to prohibit an implementer from practicing the standard.

65. Samsung's FRAND declarations falsely represented that Samsung would license its claimed essential patents on FRAND terms. None of Samsung's FRAND declarations covering any of the Samsung Asserted Patents disclosed that Samsung would take the position that parties practicing the relevant standard were not licensed or

entitled to a FRAND license to its claimed essential patents, refuse to offer FRAND license terms to certain parties, or attempt to prevent parties from practicing the relevant standard.

66. On information and belief, Samsung has declared essential many patents that are in fact not essential to practicing the UMTS standard.

67. Once the 3GPP participants selected technologies that Samsung claims are covered by its patents, they effectively lost the option to instead include or use alternative technologies capable of performing those functions, thereby excluding such technologies from the relevant Input Technologies Markets (defined below), or to continue to leave the relevant function out of the standard, in which case implementers would have been free to choose various alternative technologies to perform that function and continue to evaluate competing alternative technologies for potential standardization in future iterations of the standard. Accordingly, to the extent that Samsung's Declared-Essential Patents are essential to any standard, it was Samsung's untimely disclosure of its IPR and/or its false FRAND declarations -- not the inherent attributes of its purportedly essential technologies or the uncorrupted operation of the standard-setting process -- that conferred monopoly power on Samsung with respect to the technologies that perform the functions included in the standard.

68. Samsung's FRAND declarations are binding contractual commitments made to ETSI, its members and designers and sellers of products implementing ETSI standards (including Apple), for the benefit of ETSI, its members, and any entity that implements UMTS (or any other ETSI standard for which Samsung declared essential IPR and undertook a FRAND commitment). Samsung therefore, in accordance with Clause 6.1 of ETSI's IPR policy, bound itself to license on FRAND terms to Apple, a seller of products that implement the UMTS standard and a member of ETSI. Indeed, Samsung has admitted as much in other litigation where it has acknowledged that its

membership in ETSI created an "actual or implied contract to comply with ETSI's governing documents, including, but not limited to, ETSI's Intellectual Property Rights Policy." First Amended Complaint at 8, *Samsung Elec. Co. v. InterDigital Commc'ns Corp.*, No. 07-0167 (D. Del. Sept. 14, 2007). Samsung has also admitted that by making a FRAND declaration to ETSI, the declarant "expressly promised the wireless telecom SDOs . . . all members [of those SDOs] and any potential licensee of technology allegedly essential for compliance with the respective 3G wireless telecommunications standard, that [the declarant] would be prepared to grant irrevocable licenses to its 3G IPR on FRAND terms." *Id.* at 22-23.

69. Apple, other members of ETSI, and other companies implementing the UMTS standard have reasonably relied on Samsung's FRAND commitments to: (a) grant licenses to those patents and patent applications that Samsung claims are essential on fair, reasonable, and non-discriminatory terms; and (b) not to seek to impose unfair, unreasonable, or discriminatory conditions on licensing, such as cross-licenses of patents covering proprietary technology that is not essential to any standard. In particular, Apple and others have relied on Samsung's commitments that preclude Samsung from seeking to enjoin them from practicing the UMTS standard (given that they are licensed as a resulting of Samsung's FRAND commitments), and that require Samsung to provide fair, reasonable, and non-discriminatory royalties and other license terms that would permit efficient competitors such as Apple profitably to offer standards-compliant products in competition with Samsung and other owners of purportedly essential patents.

70. As Samsung has admitted in other litigation, "[c]onsistent with the purposes of standardization," an ETSI member "knew or reasonably should have expected" that its promise to license on FRAND terms "would induce potential licensees . . . to take or refrain from taking certain actions." First Amended Complaint at 23,

Samsung Elec. Co. v. InterDigital Commc'ns Corp., No. 07-0167 (D. Del. Sept. 14, 2007). In a different litigation, Samsung articulated the issues in more detail:

> By its declarations of essentiality to ETSI, the Claimant made a clear and unequivocal representation to ETSI Members and to all other third-party undertakings that sought to manufacture and supply mobile telephone handsets incorporating the relevant technology, including the Defendants, that it was prepared to grant them irrevocable licenses under its portfolio of essential patents (including the Patents) on FRAND terms and conditions.
>
> In view of the purpose of making such declarations (see Clause 3 of the ETSI IPR Policy) and in view of the statements of the Claimant … the said representation was intended to affect legal relations between the Claimant and *inter alia* the Defendants, and to be acted upon by the latter accordingly. Alternatively, for the said reasons, it was of such a nature that a reasonable person would have understood it to be so.

Re-Amended Defence and Counterclaim at ¶¶88-89, *Telefonaktiebolaget LM Ericsson v Samsung Electronics UK Ltd.*, HC06 C00618 (Mar. 15, 2007).

Apple has invested substantial resources in developing and marketing its iPhone and iPad products in reliance on Samsung's FRAND commitments. Samsung reasonably should have expected that Apple would do so.

SAMSUNG'S BREACH OF ITS FRAND OBLIGATIONS REGARDING ITS PURPORTED ESSENTIAL PATENTS

71. Consistent with its true intention throughout the relevant standardization period that it would not offer FRAND license terms to all implementers of the Declared-Essential Patents, Samsung has in fact failed to offer such terms to Apple and has breached its FRAND obligation regarding its Declared-Essential Patents.

72. Apple introduced its innovative and highly successful iPhone in early 2007. From that time forward, Apple has had a continuing substantial business relationship with Samsung. But it was not until late Summer 2010, that Samsung claimed for the first time that Apple was infringing any of its Declared-Essential Patents by selling the iPhone.

73. Samsung's assertion arose in the course of discussions between Apple and Samsung related to Samsung's continuing pattern of copying and infringement of certain Apple patents that are not essential to practice any standard, including patents that cover the distinctive designs and proprietary features that have been the hallmarks of Apple's highly successful products (including the iPhone and iPad).

74. After the parties were unable to resolve their dispute over Samsung's copying of Apple's products, Apple sued Samsung for infringing Apple's trade dress, trademarks, and non-essential patents.

75. In retaliation, Samsung first sued and then counterclaimed against Apple seeking to enjoin Apple from selling products compliant with the UMTS standard. It did so notwithstanding that, as a matter of law, to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed or, in the alternative, has the right to a FRAND license to the Declared-Essential Patents by virtue of Samsung's FRAND commitments and Apple's acceptance thereof.

1. Samsung's Refusal to Offer FRAND License Terms for Its Declared-Essential Patents

76. Since Samsung sued Apple,[2] Apple has asked Samsung to quote FRAND license terms no fewer than seven times. It has also repeatedly asked Samsung to provide basic information necessary for Apple to determine whether any rate that Samsung quotes is in fact fair, reasonable, and non-discriminatory, including (a) the royalty basis to which Samsung contends the FRAND royalty rate would apply (e.g., the full price of the end-user product or only the component of the end-user product that allegedly practices the Declared-Essential Patents), (b) confirmation that other companies are also paying any

[2] Samsung initially sued Apple alleging infringement of a number of patents, including the Declared-Essential Patents, in a separate action which it has since withdrawn.

royalty rate that Samsung would seek from Apple, and (c) copies or summaries of license agreements with manufacturers of UMTS-compliant chipsets.

77. It was only after months of repeated Apple requests for a FRAND offer, that Samsung finally offered Apple a license to its Declared-Essential Patents on July 25, 2011. That offer however, was manifestly not FRAND. Among other things: (i) Samsung demanded a royalty rate for its portfolio of Declared-Essential patents that is substantially higher than that indicated by the royalty calculation that Samsung has publicly stated should apply to determine a royalty rate for patents that are declared essential to the UMTS standard; (ii) Samsung refused to provide Apple any information about any license agreements for declared-essential UMTS patents with other device manufacturers, which would allow Apple to determine whether any future Samsung offers are in fact FRAND (no such information is necessary to determine that Samsung's only offer thus far is not FRAND). (Apple cannot disclose herein all of the reasons why the offer is not FRAND because Samsung has insisted that the offer be kept confidential).

78. On October 14, 2011, The Hague District Court in the Netherlands held that Samsung's only offer to Apple for a license to its Declared-Essential Patents was plainly not on FRAND terms.

79. Although Apple believes that Samsung has entered into license agreements covering the Declared-Essential Patents with other makers of cellular communications devices that implement the UMTS standard, at the time of this filing, Samsung has refused to identify the terms and conditions of those licenses. Indeed, while now claiming that it will quote FRAND license terms, Samsung has expressly reconfirmed that it will refuse to provide this information.

80. Samsung has also refused to provide copies, summaries, or any other information regarding license agreements between Samsung and manufacturers of UMTS

chipsets. To this day, Samsung has refused repeated requests to provide information about other license agreements.

2. Samsung's Discrimination Against Apple

81. Samsung has not sought to enjoin any other implementer of the UMTS standard from infringing any of its Declared-Essential Patents, even though many such implementers do not have a license from Samsung to practice its declared essential patents. Samsung is singling out Apple for abusive assertion of Declared-Essential Patents against Apple because Apple owns non-essential patents that Samsung wishes to infringe with impunity and Apple has not permitted it to do so.

82. As described in Paragraphs 17 – 22, Samsung not only has discriminatorily singled out Apple, from among all other UMTS implementers, for the infringement claims asserted in this action, but in so doing has asserted against Apple patents that it is precluded from enforcing based on Samsung's license agreements with Apple's chipset suppliers, including Intel and Qualcomm, and further has asserted patents as to which Apple has an implied license by virtue of its longstanding knowledge and participation in the production of the Apple products which it now claims to infringe its patents.

83. In addition, Samsung is a party to a cross-license agreement with Qualcomm, pursuant to which Samsung has granted covenants not to assert patents it owns or controls against customers of Qualcomm with respect to wireless devices that practice such patents by incorporating wireless telecommunications chipsets purchased from Qualcomm, including the Declared-Essential Patents.

84. By letter dated April 21, 2011, Samsung informed Apple that Samsung was immediately exercising its purported right to exclude Qualcomm's sales of chipsets to Apple from the coverage of covenants in the Samsung-Qualcomm Agreement. Samsung said that it was doing so because Apple had sued Samsung on several non

standards-essential patents in this litigation, Samsung has purported to exclude Qualcomm's sales of chipsets to Apple from the coverage of covenants in the license agreement(s) that provide that Samsung will not assert its claimed essential IPR against Qualcomm's chipset customers. Samsung has said that it was doing so because Apple had sued Samsung on several non-essential patents in this litigation.

85. Samsung's actions constitute yet another instance of Samsung seeking to leverage its Declared-Essential Patents to coerce Apple into tolerating Samsung's copying of its distinctive product designs and functions. By treating Apple differently from other UMTS implementers because Apple holds non-essential patents that Samsung wishes to infringe with impunity, Samsung is engaging in unfair, unreasonable, and discriminatory conduct that constitutes a clear violation of its FRAND commitments.

86. Samsung asserts these counterclaims against Apple for infringement of the Declared-Essential Patents to retaliate for and provide settlement leverage in this action, which Apple has brought against Samsung for infringement of its designs, trade dress, trademarks, and non standards-essential patents. Indeed, Samsung claimed that Apple was infringing its Declared-Essential Patents only after Apple sought to halt Samsung's copying of Apple's iPhone and iPad. It then repeatedly refused to offer FRAND terms for its Declared-Essential Patents standing alone or any of the information necessary to evaluate whether a supposedly FRAND offer was actually fair, reasonable, and non-discriminatory. And finally, on information and belief, Samsung has neither demanded royalties from nor sued for infringement other implementers of the UMTS standard that, unlike Apple, do not own non-essential patents that Samsung wishes to practice.

87. Thus, Samsung is seeking, unlawfully and in breach of its FRAND commitments, to assert the monopoly power it wrongly obtained in the Input Technologies Markets (defined below) in a discriminatory manner to try to coerce Apple into tolerating Samsung's pattern of repeatedly infringing Apple's designs, trade dress,

trademarks, and non standards-essential patents or licensing to Samsung its proprietary technology (to which Samsung is not entitled). Left unaddressed, this conduct will chill innovation, quality, and price competition for end products that comply with the UMTS standard by allowing Samsung to free ride on Apple's massive investments in innovation and product development rather than invest in its own distinctive products that consumers desire.

88. Indeed, a fundamental reason for ETSI's IPR policy is to permit innovators to invest in and bring to market new products that comply with the UMTS standard with confidence that holders of declared-essential patents will not seek to enjoin those products or otherwise abuse the monopoly positions that have been conveyed on them through the standardization process.

89. Samsung itself objected to precisely this sort of violation of FRAND obligations in another litigation. After observing that ETSI rules permit a holder of claimed essential patents to ask for a "reciprocal license" to a potential licensees' patents that are essential to the relevant standard, Samsung drew a sharp distinction between that and an attempt to leverage claimed-essential patents by demanding that the licensee agree not to assert non-essential patents as a condition to the license, which Samsung recognized is a clear breach of ETSI rules:

> What [the patent holder] demanded was not [a reciprocal license to essential patents] but much, much more. They demanded a nonassert by Samsung, i.e., an agreement by Samsung that it would not assert any of its patents against *any* of [the patent holder's] potential products, well beyond what ETSI rules permitted and, therefore, clearly not FRAND.

Hearing Transcript at 92, *Certain 3G Wideband Code Division Multiple Access (WCDMA) Mobile Handsets and Components Thereof*, Inv. No. 337-TA-601 (ITC July 8, 2008) (emphasis added).

At another point in the same hearing, Samsung explained in somewhat different terms how similar behavior violates FRAND rules:

> [The patent holder] condition [sic] our taking a license under the standard of ETSI . . . on our taking another license that's not covered by that standard. So, in other words, they are not just going to offer us a license on what they are obligated to license us. They say if you take that, you have also got to take another license. So they are tying the two. ETSI rules don't permit that. And that obviously increases dramatically the cost of the license to Samsung. That is not consonant with their FRAND obligation.

Id. at 89.

SAMSUNG HAS ENGAGED IN ANTICOMPETITIVE AND UNFAIR CONDUCT THAT HAS INJURED AND WILL CONTINUE TO INJURE COMPETITION AND APPLE IN THE INPUT TECHNOLOGIES MARKETS

90. Samsung's unlawful conduct has had, and will continue to have, a substantial anticompetitive effect on the Input Technologies Markets defined below.

91. In developing UMTS, ETSI participants sought to select the most appropriate technology to provide each individual function within the standards. ETSI participants evaluated whether to incorporate particular proposed functionalities and whether to include viable alternative competing technologies into the standards. They made these decisions based on technical and commercial merit and intellectual property considerations, including whether the proposed technology was covered by disclosed IPR and, if so, whether the party claiming to hold patents covering that technology had committed to make it available on FRAND terms.

92. UMTS consists of many different technologies performing a variety of functions. The technologies that perform each of these functions are essential inputs into the manufacture of products and services that comply with the standards.

93. Because UMTS specifies a set of distinct technologies to perform the various functions within the standard, once the standard was adopted, for those functions

included in the standard, there were (by definition) no substitutes for the standardized technologies that perform each function.

94. Once ETSI participants selected a single technology to perform a particular function needed to practice the standard, any alternative technologies that had been capable of performing that function were no longer viable alternatives for Apple and other parties seeking to implement UMTS. Thus, the selection of a particular technology during the standard-setting process reduced to a single option the technology to perform each function that ETSI determined to include in the standard. Parties implementing the standard such as Apple are thus "locked-in" to the technology.

95. If a technology selected for inclusion in the standard is protected by patents, the patent owner controls the supply of that particular technological input for the standard. This is true for each function comprising the standard for which patented technology was selected.

96. As Samsung explained in a litigation in the United Kingdom:

> The Claimant holds a dominant position in each of the relevant technology markets. Any undertaking that wishes to carry on business in the economic market for the supply of mobile telephone handsets for use in the European Union has no choice but to seek and obtain a license under the Claimant's portfolio of essential patents (including the Patents). If the Claimant were to choose to exploit any such undertaking by, for example, charging excessive and/or discriminatory prices, that undertaking could not respond by switching its purchases of the relevant technology to an alternative supplier, or by using some alternative technology. The Claimant is therefore an unavoidable trading partner for any undertaking wishing to compete in the mobile handset market in the European Union. It faces no competitors in the supply of the relevant technology, and it has the power to behave to an appreciable extent independently of its customers and, ultimately, consumers.

Re-Amended Defence and Counterclaim at ¶70, *Telefonaktiebolaget LM Ericsson v Samsung Electronics UK Ltd.*, HC06 C00618 (Mar. 15, 2007).

97. Here, Samsung has claimed that each of its Declared-Essential Patents is essential to practicing technologies that are used for certain functions of UMTS, the world's most widely adopted telecommunications standard.

98. The technology that Samsung has identified with respect to each of these Declared-Essential Patents concerns a specific aspect of radio signal transmission in a UMTS network. For UMTS, the '516 patent identifies a Power Control Scaling Technology; the '941 Patent identifies a VoIP Header Technology; the '001 patent identifies a Transport Channel Multiplexing Technology; the '410 patent identifies a Rate Matching Technology; the '604 patent identifies a Block Concatenation Technology; the '792 patent identifies an Interleaving Technology; the '867 patent identifies a Scrambling Code Technology.

99. The relevant markets in which to assess the anticompetitive effects of Samsung's conduct, therefore, are the various markets for technologies that -- before the standard was implemented -- were competing to perform each of the various functions covered by each of Samsung's purported essential patents for UMTS (collectively, the relevant "Input Technologies Markets"). The functionality for UMTS provided by each Input Technology, therefore, comprises its own relevant market for antitrust purposes. In particular, for UMTS the technology identified in the '516 patent and its reasonable substitutes comprise the Power Control Technology Market. The technology identified in the '941 Patent and its reasonable substitutes comprise the VoIP Header Technology Market. The technology identified in the '001 patent and its reasonable substitutes comprise the Transport Channel Multiplexing Technology Market. The technology identified in the '001 patent and its reasonable substitutes comprise the Rate Matching Technology Market. The technology identified in the '604 patent and its reasonable substitutes comprise the Block Concatenation Technology Market. The technology identified in the '792 patent and its reasonable substitutes comprise the Interleaving

Technology Market. The technology identified in the '867 patent and its reasonable substitutes comprise the Scrambling Code Technology Market. Before standardization, the sellers in these Input Technologies Markets were the companies supplying technologies capable of performing the relevant function incorporated in the standard. After standardization, however, the holder of patents covering the technology that performs a given function holds a monopoly in the relevant Input Technology Market. That is because, post-standardization, formerly viable alternative technologies are no longer viable because of the lock-in effect discussed at Paragraphs 27 and 28.

100. UMTS is employed throughout the world and alternative technologies competing to be incorporated into UMTS standard were offered by suppliers from around the world. Accordingly, the geographic scope of each of the relevant Input Technologies Markets described above is worldwide.

101. If Samsung in fact has patents covering technologies that have been incorporated into the relevant standard, it has the power to raise prices and exclude competition with respect to each of the technologies covered by its patents and incorporated in the relevant standard. And it acquired that power as a result of its misconduct in connection with the standard-setting process, including untimely disclosure of its IPR and/or false FRAND commitments. Barriers to entry into these markets are high because, among other reasons, the post-standardization lock-in effect means that other technologies are no longer viable substitutes for the technologies the standard specifies to perform functions included in the standard.

102. As described in Paragraphs 93 to 101, Samsung holds monopoly power in the Input Technology Markets assuming that the Declared-Essential Patents that Samsung has asserted are – as Samsung claims – essential to the UMTS standard, valid and enforceable. In the alternative, even if one or more of the Samsung Declared-Essential Patents that Samsung has asserted in this case were ultimately determined not to be

essential to the UMTS standard (or were determined to be invalid or unenforceable), Samsung would still hold a monopoly position in the Input Technology Market associated with each such patent until such a determination were established conclusively. Merely by asserting a Declared-Essential Patent, Samsung is able to extract royalties or other licensing terms for that patent greatly exceeding what it could have obtained before 3GPP standardized the technology it claims is covered by its patent. Samsung enjoys that hold-up power because, absent a license, a UMTS implementer must risk possible injunction against the sale of products implementing the UMTS standard, potential treble damages in an infringement action, and/or prosecute a lengthy and expensive legal challenge to the validity, enforceability or essentiality of the Declared-Essential Patent. Moreover, that hold-up power is enhanced where Samsung holds and has asserted multiple declared essential patents, as it did in this instance by seeking to extract exorbitant royalties for its entire portfolio of declared-essential patents. By the assertion of multiple patents, the likelihood that some or even many may prove actually not to be essential (or to be invalid or unenforceable), does not prevent Samsung from extracting monopoly royalties or other license terms.

SAMSUNG HAS ENGAGED IN UNFAIR AND ANTICOMPETITIVE CONDUCT THAT THREATENS TO INJURE APPLE AND COMPETITION IN THE DOWNSTREAM MARKETS FOR MOBILE CELLULAR COMMUNICATIONS DEVICES

103. Samsung deliberately and deceptively failed to timely disclose IPR that it now claims are essential to the relevant industry standard and made false FRAND commitments. This course of misconduct enabled Samsung to obtain monopoly power in the Input Technologies Markets that it could assert against licensees to obtain excessive royalties. Samsung wrongfully asserted this power when it refused to specify FRAND license terms for Apple, a more successful competitor in the downstream markets for mobile cellular communications devices in which Apple and Samsung compete.

104. By (a) wrongfully seeking to enjoin Apple from selling end products that contain chipsets, notwithstanding that Apple is entitled to sell end products containing such chipsets by reason of (i) Samsung's license agreements with Intel and Qualcomm and (ii) the FRAND commitments that Samsung made to ETSI; (b) wrongfully obtaining monopoly power in the Input Technologies Markets through non-disclosure of its IPR during the standard-setting process and false commitments to offer FRAND license terms to implementers of the UMTS standard; and (c) by attempting to coerce Apple to accept unfair, unreasonable, discriminatory licensing terms by abusively accusing Apple of infringement and seeking an injunction, Samsung seeks to exclude from the manufacture and sale of downstream wireless devices and raise the costs of its rival, Apple. Moreover, Samsung's conduct more broadly has and continues to threaten unlawfully to exclude rivals from and increase royalties and other costs associated with the manufacture and sale of downstream cellular communications devices that implement the UMTS standard and chill competition to develop and sell innovative new UMTS-compliant products, resulting in increased prices and decreased quality and innovation in downstream product markets and complementary innovation markets.

ANTICOMPETITIVE EFFECTS OF SAMSUNG'S CONDUCT

105. The foregoing conduct by Samsung has caused and threatens to cause harm to competition. These anticompetitive effects include each of the following:

(a) By deliberately failing to disclose purportedly essential IPR during the standard-setting process and by making false FRAND commitments to ETSI, Samsung has improperly foreclosed competition in each of the relevant Input Technologies Markets. Before standardization, each functionality that is purportedly covered by one of Samsung's claimed essential patents and included in the standard and all available technical alternatives competed in a relevant product market; following standardization, alternative technologies to perform functions necessary to practice the standard are no longer viable.

(b) Samsung's unlawful conduct has increased prices and decreased quality and innovation for technologies in Input Technologies Markets. Apple and other consumers of input technologies have been harmed by Samsung's conduct by being forced to pay (or face demands for, on threat of injunction and marketplace

disparagement) higher prices for and having access to lower quality and less innovative input technologies as a result of Samsung's illegal conduct.

(c) Samsung's conduct has and, unless enjoined, will continue to substantially increase costs associated with the manufacture and sale of downstream of mobile cellular communications devices that are compliant with the UMTS standard, potentially exclude rivals from the manufacture and sales of such devices, and chill innovation and quality competition for products that comply with the UMTS standard.

(d) Samsung's conduct also threatens to chill innovation and quality competition for products that comply with the UMTS standard. If Samsung's conduct is left unchecked, innovators will no longer be able to invest in and bring to market products that comply with the UMTS standard with confidence that holders of declared essential patents will not be able unreasonably to exploit their position by demanding cross-licenses to *non-essential* patents or exorbitant royalties or other licensing terms.

106. Such harm will continue unless and until the Court issues appropriate relief as requested below.

APPLE'S COUNTERCLAIMS IN REPLY

FIRST COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '604 Patent)

107. Apple incorporates and realleges Paragraphs 1 through 106 of this Counterclaim.

108. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '604 Patent.

109. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '604 Patent.

SECOND COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '604 Patent)

110. Apple incorporates and realleges Paragraphs 1 through 109 of this Counterclaim.

111. One or more of the claims of the '604 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

112. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '604 Patent is invalid.

THIRD COUNTERCLAIM
(Declaration of Non-Infringement of the '410 Patent)

113. Apple incorporates and realleges Paragraphs 1 through 112 of this Counterclaim.

114. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '410 Patent.

115. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '410 Patent.

FOURTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '410 Patent)

116. Apple incorporates and realleges Paragraphs 1 through 115 of this Counterclaim.

117. One or more of the claims of the '410 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

118. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '410 Patent is invalid.

FIFTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '055 Patent)

119. Apple incorporates and realleges Paragraphs 1 through 118 of this Counterclaim.

120. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '055 Patent.

121. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '055 Patent.

SIXTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '055 Patent)

122. Apple incorporates and realleges Paragraphs 1 through 121 of this Counterclaim.

123. One or more of the claims of the '055 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

124. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '055 Patent is invalid.

SEVENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '871 Patent)

125. Apple incorporates and realleges Paragraphs 1 through 124 of this Counterclaim.

126. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '871 Patent.

127. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '871 Patent.

EIGHTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '871 Patent)

128. Apple incorporates and realleges Paragraphs 1 through 127 of this Counterclaim.

129. One or more of the claims of the '871 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

130. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '871 Patent is invalid.

NINTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '792 Patent)

131. Apple incorporates and realleges Paragraphs 1 through 130 of this Counterclaim.

132. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '792 Patent.

133. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '792 Patent.

TENTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '792 Patent)

134. Apple incorporates and realleges Paragraphs 1 through 133 of this Counterclaim.

135. One or more of the claims of the '792 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

136. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '792 Patent is invalid.

ELEVENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '867 Patent)

137. Apple incorporates and realleges Paragraphs 1 through 168 of this Counterclaim.

138. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '867 Patent.

139. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '867 Patent.

TWELFTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '867 Patent)

140. Apple incorporates and realleges Paragraphs 1 through 139 of this Counterclaim.

141. One or more of the claims of the '867 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

142. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '867 Patent is invalid.

THIRTEENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '001 Patent)

143. Apple incorporates and realleges Paragraphs 1 through 142 of this Counterclaim.

144. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '001 Patent.

145. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '001 Patent.

FOURTEENTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '001 Patent)

146. Apple incorporates and realleges Paragraphs 1 through 145 of this Counterclaim.

147. One or more of the claims of the '001 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for

patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

148. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '001 Patent is invalid.

FIFTEENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '516 Patent)

149. Apple incorporates and realleges Paragraphs 1 through 148 of this Counterclaim.

150. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '516 Patent.

151. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '516 Patent.

SIXTEENTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '516 Patent)

152. Apple incorporates and realleges Paragraphs 1 through 151 of this Counterclaim.

153. One or more of the claims of the '516 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

154. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '516 Patent is invalid.

SEVENTEENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '893 Patent)

155. Apple incorporates and realleges Paragraphs 1 through 154 of this Counterclaim.

156. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '893 Patent.

157. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '893 Patent.

EIGHTEENTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '893 Patent)

158. Apple incorporates and realleges Paragraphs 1 through 157 of this Counterclaim.

159. One or more of the claims of the '893 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

160. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '893 Patent is invalid.

NINETEENTH COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '460 Patent)

161. Apple incorporates and realleges Paragraphs 1 through 160 of this Counterclaim.

162. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '460 Patent.

163. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '460 Patent.

TWENTIETH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '460 Patent)

164. Apple incorporates and realleges Paragraphs 1 through 163 of this Counterclaim.

165. One or more of the claims of the '460 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

166. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '460 Patent is invalid.

TWENTY-FIRST COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '941 Patent)

167. Apple incorporates and realleges Paragraphs 1 through 166 of this Counterclaim.

168. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '941 Patent.

169. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '941 Patent.

TWENTY-SECOND COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '941 Patent)

170. Apple incorporates and realleges Paragraphs 1 through 169 of this Counterclaim.

171. One or more of the claims of the '941 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

172. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '941 Patent is invalid.

TWENTY-THIRD COUNTERCLAIM
(Declaratory Judgment of Non-Infringement of the '711 Patent)

173. Apple incorporates and realleges Paragraphs 1 through 172 of this Counterclaim.

174. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '711 Patent.

175. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that it has not infringed and is not infringing any valid, enforceable claim of the '711 Patent.

TWENTY-FOURTH COUNTERCLAIM
(Declaratory Judgment of Invalidity of the '711 Patent)

176. Apple incorporates and realleges Paragraphs 1 through 175 of this Counterclaim.

177. One or more of the claims of the '711 Patent are invalid for failing to meet one or more of the requisite statutory and decisional requirements and/or conditions for

patentability under Title 35 of the United States Code, including without limitation, §§ 101, 102, 103, and/or 112.

178. To resolve the legal and factual questions raised by Samsung and to afford relief from the uncertainty and controversy that Samsung's accusations have precipitated, Apple is entitled to a declaratory judgment that the '711 Patent is invalid.

TWENTY-FIFTH COUNTERCLAIM
(Breach of Contract – FRAND and Other Standard-Related Misconduct)

179. Apple incorporates and realleges Paragraphs 1 through 178 of this Counterclaim.

180. As set forth above, by committing to license the Declared-Essential Patents to adopters of the UMTS standard on FRAND terms, Samsung entered into contractual commitments with ETSI, ETSI's members, and designers and sellers of products that implement the Relevant Standards.

181. Each party implementing the UMTS standard – including Apple – is an intended third party beneficiary and obtains the benefits of Samsung's contractual commitments. It was material, indeed critical, to Samsung's contractual commitments that Samsung agree to convey FRAND licenses to all adopters of the UMTS standard – including Apple.

182. Samsung breached these contracts by claiming infringement and seeking to enjoin Apple from practicing the UMTS standard, notwithstanding that, to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed to any valid patents covering those claimed inventions or, in the alternative, has the right to a FRAND license to the Declared-Essential Patents by virtue of Samsung's FRAND commitments and Apple's acceptance thereof; and by acting unreasonably and unfairly towards and discriminating against Apple because

Apple holds designs, trade dress, trademarks, and non standards-essential patents that Samsung wishes to infringe with impunity.

183. Additionally, as an independent breach of its contractual obligations to ETSI, and to Apple, Samsung failed to timely disclose its allegedly essential patents in accordance with the requirements of the ETSI IPR Policy.

184. As a result of these multiple contractual breaches, Apple has been injured, including in its business or property. Apple has been forced to expend resources resolving this licensing dispute, including defending counterclaims against it for patent infringement and efforts to enjoin its products, and has suffered or faces the threat of, in particular, increased costs, lower quality or innovation for Input Technologies, loss of profits, loss of customers and potential customers, loss of goodwill and product image, uncertainty in business planning, and uncertainty among customers and potential customers.

TWENTY-SIXTH COUNTERCLAIM
(Promissory Estoppel)

185. Apple incorporates and realleges Paragraphs 1 through 184 of this Counterclaim.

186. Samsung made clear and definite promises to potential licensees through its commitments to ETSI that it would license the Declared-Essential Patents on FRAND terms.

187. The intended purpose of Samsung's promises was to induce reliance. Samsung knew or should have reasonably expected that these promises would induce sellers of mobile wireless devices, like Apple, to develop products compliant with the UMTS standard.

188. Apple developed and marketed its products and services in reliance on Samsung's promises, as described above, including making its products and services compliant with the UMTS standard.

189. Samsung is estopped from reneging on these promises to ETSI, its members, designers, and sellers of products implementing the UMTS standard, under the doctrine of promissory estoppel.

190. Apple has been harmed as a result of its reasonable reliance on Samsung's promises. Apple has been forced to expend resources resolving this licensing dispute, including defending counterclaims against it for patent infringement and efforts to enjoin its products notwithstanding its license to Samsung's purported standards-essential patents, or in the alternative its right to a FRAND license to the Declared-Essential Patents by virtue of Samsung's FRAND commitments and Apple's acceptance thereof, and is threatened by the loss of profits, loss of customers and potential customers, loss of goodwill and product image, uncertainty in business planning, and uncertainty among customers and potential customers.

191. Apple invokes the Court's equitable powers to address this cause of action. Apple requests that the Court find that Samsung's standards-related misconduct recited herein renders unenforceable Samsung's purported standards-essential patents, including those allegedly essential to the UMTS standard, such as the Declared-Essential Patents.

TWENTY-SEVENTH COUNTERCLAIM
(Declaratory Judgment that Apple is Licensed to Samsung's Declared-Essential Patents)

192. Apple incorporates and realleges Paragraphs 1 through 191 of this Counterclaim.

193. There is a dispute between the parties concerning whether, to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed or, in the alternative, has an irrevocable right to a FRAND

license to Samsung's Declared-Essential Patents by virtue of Samsung's FRAND commitments.

194. The dispute is of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

195. Apple is entitled to a declaratory judgment that, to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers and covered by valid patents, Apple is licensed to Samsung's Declared-Essential Patents by virtue of Samsung's FRAND commitments or, in the alternative, Apple has the irrevocable right to be licensed on FRAND terms under those patents.

196. Because, as a result of Samsung's refusal to make disclosures relating to FRAND or provide Apple with any information it would need to determine whether any purportedly FRAND license offer is in fact fair, reasonable, and non-discriminatory, Apple and Samsung have been unable to agree on FRAND terms for Samsung's Declared-Essential Patents, Apple is further entitled to a declaratory judgment setting forth the FRAND terms and conditions for a license to the Declared-Essential Patents, including the applicable royalty rate.

TWENTY-EIGHTH COUNTERCLAIM
(Violation of Section 2 of the Sherman Act, 15 U.S.C. § 2)

197. Apple incorporates and realleges Paragraphs 1 through 196 of this Counterclaim.

198. Samsung has unlawfully monopolized each of the relevant Input Technologies Markets by deliberately and deceptively failing to timely disclose – before standardization – IPR that Samsung claims covers essential elements of the standard and making false commitments to license IPR on FRAND terms, and by reneging on its

FRAND commitments. Samsung has undertaken this cumulative course of misconduct with the intent to monopolize the relevant Input Technologies Markets.

199. Had Samsung properly disclosed its IPR in a timely manner and had Samsung disclosed its true intent to assert that parties implementing the standard were not licensed and should be enjoined from selling UMTS compliant products or required to pay exorbitant license fees and accept other non-FRAND terms, 3GPP would have decided to standardize an alternative technology to perform the relevant function. Alternatively, 3GPP would have continued to leave the relevant function out of the standard, in which case implementers would have been free to choose various alternative technologies to perform that function and 3GPP would have been free to continue to evaluate competing alternative technologies for potential standardization in future iterations of the standard. Samsung thus would not have obtained a monopoly in the relevant Input Technologies Markets.

200. Samsung's non-disclosure and false FRAND commitments proximately resulted in incorporation into the standard of technology over which Samsung claims patent rights. Samsung has therefore unlawfully excluded competing technologies from each of the relevant Input Technologies Markets and unlawfully acquired monopoly power in those markets.

201. As a direct and proximate result of Samsung's monopolization, Apple has suffered injury to its business and property and is threatened by the imminent loss of profits, loss of customers and potential customers, and loss of goodwill and product image. Apple suffers anticompetitive injury as a purchaser in the Input Technologies Markets because reasonable substitutes have been excluded. Because Samsung has abused its wrongfully-obtained monopoly power, Apple has been forced to expend significant resources. Moreover, Apple also incurred substantial costs in defending against Samsung's baseless patent infringement counterclaims.

TWENTY-NINTH COUNTERCLAIM
(Unfair Competition Under Cal. Bus. & Prof. Code § 17200)

202. Apple incorporates and realleges Paragraphs 1 through 201 of this Counterclaim.

203. By the acts alleged, Samsung has engaged in unfair competition within the meaning of Cal. Bus. & Prof. Code § 17200, et seq. both through conduct that also violates the antitrust laws and conduct that violates § 17200 for other reasons.

204. Samsung's conduct, as set forth in these counterclaims, constitutes: (a) unlawful business acts or practices in violation of the federal antitrust laws, (b) fraudulent conduct and (c) unfair business acts or practices, including but not limited to unfair business practices threatening an incipient violation of an antitrust law, violating the policy or spirit of the antitrust laws and otherwise significantly threatening and harming competition in California and elsewhere.

205. Samsung committed unlawful business acts or practices by violating Section 2 of the Sherman Act and Section 5 of the Federal Trade Commission Act.

206. Samsung engaged in fraudulent conduct by engaging in fraudulent non-disclosures with respect to its claimed essential IPR and FRAND commitments.

207. Samsung committed unfair business acts or practices by (i) failing to timely disclose its claimed essential IPR; (ii) failing to disclose that it did not intend to meet its FRAND commitments; (iii) suing and then asserting counterclaims against Apple for patent infringement and an injunction, notwithstanding that – as both Samsung knew and a reasonable person would know that – (a) Samsung is precluded from asserting Samsung Asserted Patents against Apple to the extent such patents are substantially embodied in chipsets that Apple buys from licensed suppliers authorized by Samsung to sell such chipsets for incorporation into Apple's products; (b) Apple is impliedly licensed to sell products, as to which Samsung was involved and acquiesced for many years in their production without claiming infringement; and (c) Apple is licensed

or, in the alternative, has the right to a FRAND license to Samsung's Declared-Essential Patents by virtue of Samsung's FRAND commitments; (iv) acting unfairly and unreasonably towards and discriminating against Apple in its licensing practices because Apple owns designs, trade dress, trademarks, and non standards-essential patents that Samsung wishes to infringe with impunity.

208. As a direct, proximate, and foreseeable result of Samsung's wrongful conduct, as alleged above, competition has been injured in the Input Technologies Markets, for the reasons described in Paragraph 101. Samsung's wrongful conduct also brings a significant threat of injury for downstream price, quality, and innovation competition for mobile cellular communication devices (including smartphones and table computers), thereby causing injury to consumers in California and elsewhere. These threatened injuries include the inevitable passing on to consumers of improper royalties demanded by Samsung and decreases in innovation and quality competition for end products that comply with the UMTS standard. Among other things, Samsung's abusive conduct threatens to dampen innovation for products that comply with the UMTS standard by eliminating manufacturers' ability to invest in and bring to market innovative products with confidence that holders of claimed essential patents will not seek to enjoin their products or demand exorbitant, non-FRAND licensing terms.

209. As a direct, proximate, and foreseeable result of Samsung's wrongful conduct, as alleged above, Apple has suffered harm in California and elsewhere, both as a customer in the Input Technology Markets and as a supplier of downstream products. This harm includes, among other things: Samsung's suing and seeking injunctions against Apple end products notwithstanding that Apple is entitled to sell end products containing chipsets Apple purchases from Intel and Qualcomm by virtue of Samsung's license agreements with Intel and Qualcomm, Apple's chipset suppliers; the unavailability of a FRAND license despite Samsung's assurance that it would offer such

FRAND licenses; being forced to expend resources to defend counterclaims for patent infringement, and has suffered or faces the threat of, in particular, increased costs, lower quality or innovation for Input Technologies, loss of profits, loss of customers and potential customers, loss of goodwill and product image, uncertainty in business planning, and uncertainty among customers and potential customers.

PRAYER FOR RELIEF

WHEREFORE, Apple requests that the Court:

a. Dismiss Samsung's Counterclaims in their entirety, with prejudice;

b. Enter judgment in favor of Apple and against Samsung;

c. Adjudge and decree that Samsung is liable for breach of contract, promissory estoppel, violation of Section 2 of the Sherman Act, 15 U.S.C. § 2, and/or violation of Cal. Bus. & Prof. Code § 17200;

d. On Apple's Twenty-Fifth, Twenty-Sixth, and/or Twenty-Eighth, claims for relief, enter judgment against Samsung for the amount of damages Apple proves at trial and, as an equitable remedy, enter judgment declaring that Samsung's purported essential patents, including the Declared-Essential Patents, are unenforceable by virtue of standards-related misconduct including (i) Samsung's breach of its FRAND commitments and/or (ii) Samsung's breach of its disclosure obligations at ETSI;

e. On Apple's Twenty-Seventh claim for relief, enter judgment declaring that, to the extent any of the alleged inventions described in and allegedly covered by the Declared-Essential Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed to Samsung's Declared-Essential Patents by virtue of Samsung's FRAND commitments or, in the alternative, Apple has the irrevocable right to be licensed on FRAND terms under those patents;

f. On Apple's Twenty-Eighth claim for relief, pursuant to Section 4 of the Clayton Act, 15 U.S.C. § 15, enter judgment against Samsung for treble the amount of Apple's damages, enjoin Samsung from demanding from Apple non-FRAND terms for Samsung's purportedly essential patents, and award Apple all reasonable attorneys' fees and costs;

g. On Apple's Twenty-Ninth claim for relief, enter judgment that Samsung has violated the California Unfair Competition Law; enjoin Samsung from further violations of that Law; and award all reasonable attorneys' fees and costs;

h. Declare that Apple has not infringed, and is not infringing, each of the Samsung asserted patents;

i. Declare that one or more of the claims of each of the Samsung asserted patents are invalid, void and/or unenforceable against Apple; and

j. Grant such further relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Apple hereby demands trial by jury on all issues so triable raised by the Amended Complaint or by this Amended Counterclaim in Reply.

Dated: October 28, 2011

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served on October 28, 2011, to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Civil Local Rule 5.4. Any other counsel of record will be served by electronic mail, facsimile and/or overnight delivery.

/s/ Mark. D Selwyn
Mark D. Selwyn