

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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NOKIA CORPORATION, )  
 )  
 Plaintiff, )  
 )  
 v. )  
 )  
 APPLE INC., )  
 )  
 Defendant. )

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C.A. 09-791-GMS

APPLE INC., )  
 )  
 Counterclaim-Plaintiff, )  
 )  
 v. )  
 )  
 NOKIA CORPORATION and NOKIA INC., )  
 )  
 Counterclaim-Defendants. )

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**JURY TRIAL DEMANDED**

**APPLE INC.’S FIRST AMENDED ANSWER, DEFENSES, AND COUNTERCLAIMS**

**INTRODUCTORY STATEMENT**

1. This is Apple Inc.’s (“Apple”) responsive pleading under Fed. R. Civ. P. 12, and contains Apple’s defenses to the claims asserted by Nokia Corporation in its Complaint for Patent Infringement and Declaratory Judgment, and Apple’s First Amended Counterclaims against Nokia Corporation and Nokia, Inc. (together, “Nokia”) pursuant to Fed. R. Civ. P. 13.

2. Apple responds to the allegations contained in the numbered paragraphs of Nokia’s Complaint below, but first provides this brief overview of its response. With respect to Nokia’s claims of infringement (a) Apple denies that it infringes any valid claim of the patents identified in Counts I – X of Nokia’s Complaint (“Nokia Asserted Patents”), (b) Apple denies

that the Nokia Asserted Patents are essential to any standard, but to the extent that they are construed by the Court as essential, Apple asserts on information and belief that Nokia (i) deliberately and deceptively failed to disclose intellectual property rights (“IPR”), including certain of the Nokia Asserted Patents (detailed below), to the relevant Standards Setting Organization (“SSO”) prior to the SSO’s decision to incorporate technologies purportedly covered by those patents into the standard, in violation of the SSO’s IPR policy; (ii) after committing to license its standards-essential patents (including those patents it concealed during the standards-setting process and belatedly disclosed) on Fair, Reasonable, and Non-Discriminatory (“F/RAND”) terms, deliberately refused to offer F/RAND license terms to Apple in violation of Nokia’s contractual obligation to do so, and then sued Apple for patent infringement when Apple refused to pay non-F/RAND terms; and (c) to the extent the Nokia Asserted Patents are construed by the Court to be essential to any standard, Apple asserts that it has the irrevocable right to be licensed under those patents on F/RAND terms.

3. In dealing with Apple, Nokia has sought to gain an unjust competitive advantage over Apple by charging unwarranted fees to use patents that allegedly cover industry standards and by seeking to obtain access to Apple’s intellectual property. Nokia needs access to Apple’s intellectual property because Nokia has copied and is now using that patented technology. Nokia’s improper claims against Apple therefore should be rejected, and Apple seeks recovery for Nokia’s infringement of the Apple patents identified in Counts XXVII through XXXV of Apple’s counterclaim.<sup>1</sup>

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<sup>1</sup> In addition, Nokia is exploiting various other technologies developed by Apple that are the subject of issued patents not asserted herein as well as currently pending patent applications filed by Apple. By way of example, the U.S. Patent Office recently allowed Apple’s patent application No. 11/322,549, entitled Unlocking a Device By Performing Gestures On An Unlock Image, which Nokia is using.

4. When mobile wireless handsets or cell phones were first introduced, the technology focused on the ability to make and receive traditional voice calls. Nokia was an early participant in the development and sale of these traditional voice call-focused mobile phones. Over time, however, mobile phone technology converged with computer technology and other technology advances, including many advances pioneered by Apple. The result of this convergence of technology is that today's mobile phones have not only traditional voice capabilities, but also an enormously wide range of capabilities that historically have been found only in personal computers. For example, today's "smartphones" can send and receive emails, surf the Internet, play videos and music, take and send pictures, and run software applications. Today's "smartphones" are sophisticated, portable computing devices with immense capabilities.

5. Long a leader in computer technology, Apple foresaw the importance of converged user-friendly mobile devices. Capitalizing upon its unique operating system, hardware, application software, services, and know-how, Apple provides its customers new products and solutions with superior ease-of-use, seamless integration, and innovative industrial design. Apple has designed a business strategy based on the convergence of personal computers, mobile communications, and digital consumer electronics, and produced cutting-edge, technologically superior, and user-friendly devices such as the iPod, iPod Touch, and the iPhone.

6. In 2007, Apple introduced the iPhone, a ground-breaking device that allowed users access to the functionality of the already popular iPod on a revolutionary mobile phone and Internet device. The iPhone is a converged device that allows users to access an ever expanding set of software features to take and send pictures, play music, play games, do research, serve as a GPS device, and much more. The convergence of technologies and popularity of the iPhone and its "apps" are evident by the overwhelming success of Apple's App Store, which now offers

more than 100,000 “apps” in twenty different categories, including games, business, news, sports, health, and travel. The iPhone platform has caused a revolutionary change in the mobile phone category.

7. In contrast, Nokia made a different business decision and remained focused on traditional mobile wireless handsets with conventional user interfaces. As a result, Nokia has rapidly lost sales to more innovative products. Nokia has admitted that, as a result of the iPhone launch, “the market changed suddenly and [Nokia was] not fast enough changing with it.” (Abhinav Ramnarayan, “Nokia Fights Back for Share of Smartphone Market,” *The Guardian* (London), Sept. 3, 2009, at 24.)

8. In response, Nokia chose to copy the iPhone, especially its enormously popular and patented design and user interface. As Anssi Vanjoki, Nokia’s Executive Vice President and General Manager of Multimedia, stated at Nokia’s GoPlay event in 2007 when asked about the similarities of Nokia’s new offerings to the already released iPhone: “If there is something good in the world, we copy with pride.”

9. In the present suit, Nokia has asserted unfounded claims of infringement of patents that are unenforceable by virtue of Nokia’s course of misconduct in connection with the standards-setting process. In particular, Nokia: (1) failed to disclose its IPR during the standards-setting process; (2) made untimely and false commitments to license its purported standards-essential patents on F/RAND terms; (3) breached its belated F/RAND commitments by demanding unjustifiable royalties and reciprocal licenses to Apple’s patents covering Apple’s pioneering technology – patents unrelated to any industry standard; and (4) after Apple refused to accede to the unreasonable demands, sued Apple for patent infringement even though Apple had a right to implement Nokia’s purported standards-essential patents in its products and was

licensed as a matter of law by virtue of Nokia's F/RAND commitments. This anticompetitive scheme by Nokia is an effort to extract excessive royalties by abusing the standards-setting process and to free ride on the commercial success of Apple's innovative iPhone while avoiding liability for copying the iPhone and infringing Apple's patents.

**ANSWER**

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

**INTRODUCTION<sup>2</sup>**

1. Paragraph 1 contains no allegation to which a response is required.
2. Apple denies the allegations in Paragraph 2.
3. Apple admits that Nokia has declared one or more of the patents-in-suit essential to one or more of the GSM, UMTS, and/or 802.11 Standards and has promised to grant licenses under each patent on fair, reasonable, and nondiscriminatory ("FRAND") terms and conditions (in some cases, alternatively referred to as "reasonable and nondiscriminatory," or "RAND") (collectively "F/RAND"). Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations of Paragraph 3.
4. Apple admits that it has the right to be granted license(s) to Nokia's declared essential patents under F/RAND terms and conditions. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations of Paragraph 4.
5. Apple denies the allegations in Paragraph 5.
6. Apple denies the allegations in Paragraph 6.

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<sup>2</sup> For convenience and clarity, Apple's Answer utilizes the same headings as set forth in Nokia's Complaint. In so doing, Apple does not admit any of the allegations contained in Nokia's headings.

7. Paragraph 7 contains no allegation to which a response is required but, to the extent any response is required, Apple denies the allegations in Paragraph 7.

#### **PARTIES**

8. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 8.

9. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 9.

10. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 10.

11. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 11.

12. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 12.

13. Apple lacks knowledge or information sufficient to form a belief as to the truth of the allegations of Paragraph 13.

14. Apple admits the allegations of Paragraph 14.

15. Apple admits that it sold its first mobile telephone device in 2007. Apple denies the remaining allegations of Paragraph 15.

#### **JURISDICTION AND VENUE**

16. Apple admits that this Court has subject matter jurisdiction over Nokia's claims.

17. Apple admits that this Court may exercise personal jurisdiction over Apple.

18. Apple admits that its products are used, offered for sale, sold, and have been purchased in Delaware. Apple admits, for purposes of this action only, that venue is proper in this District.

### **FACTUAL BACKGROUND**

#### **The Mobile Wireless Industry**

19. Apple admits the allegations of Paragraph 19.

20. Apple admits the allegations of Paragraph 20.

21. Apple admits the allegations of Paragraph 21.

22. Apple admits the allegations of Paragraph 22.

#### **The Importance of Standards**

23. Apple admits that it is a member of the European Telecommunications Standards Institute (“ETSI”). Apple admits that Nokia is also a member of ETSI. Apple admits that ETSI is a non-profit institution founded in 1988, and that the UMTS and GSM standards were developed under the aegis of ETSI. Apple lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations of Paragraph 23.

24. Apple admits the allegations of Paragraph 24.

25. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is engaged in research and development of new telecommunications technologies or whether Nokia owns intellectual property rights relating to different elements of such technologies. Apple admits that ETSI members are engaged in research and development of telecommunications technology and own intellectual property rights relating to different elements of such technologies. Apple admits that ETSI members take such intellectual property rights into account when developing specifications for standards, and that ETSI has adopted an

Intellectual Property Policy (“the ETSI IPR Policy”) to govern the manner in which ETSI will take account of such intellectual property rights in the process leading to the adoption of ETSI standards. Apple denies the remaining allegations of Paragraph 25.

26. Apple admits that the ETSI IPR policy was adopted in 1994, that it has been part of the "ETSI Directives" since at least December 2004, and that its provisions are explained in the ETSI Guide on Intellectual Property Rights. Apple denies the remaining allegations of Paragraph 26.

27. Apple admits that Nokia has correctly quoted Clause 3.1 of the ETSI IPR Policy, which speaks for itself.

28. Apple denies that ETSI permits its members to decline to refuse the granting of licenses and admits the remaining allegations of Paragraph 28.

29. Apple admits that Nokia has correctly quoted a portion of Clause 6.1 of the ETSI IPR Policy, which speaks for itself.

30. Apple admits that Clause 8 of the ETSI IPR Policy sets forth ETSI’s procedures for addressing the inability to obtain a FRAND undertaking from a potential essential patent holder. Clause 8 speaks for itself. Clauses 4 and 6 of the ETSI IPR Policy set forth ETSI’s policies on such disclosures and undertakings, and they speak for themselves.

31. Apple admits that Nokia has submitted FRAND undertakings for certain of the patents-in-suit, including U.S. Patent No. 5,802,465 (the “‘465 Patent”). Apple lacks sufficient knowledge or information as to the specific language of the ‘465 Patent undertaking to form a belief as to the truth of the remaining allegations of Paragraph 31.

32. Apple admits the allegations of Paragraph 32.



33. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is engaged in research and development of new technologies or whether Nokia owns intellectual property rights relating to different elements of such technologies. Apple admits that IEEE-SA members are engaged in the research and development of new technologies and own intellectual property rights relating to different elements of such technologies. Apple admits that the IEEE-SA Standards Board Bylaws (“IEEE-SA Bylaws”) contain an IPR (*i.e.*, intellectual property rights) policy, which speaks for itself. Apple denies the remaining allegations of Paragraph 33.

34. Apple admits that Clause 6.2 of the IEEE-SA Bylaws includes provisions governing when letters of assurances will be requested and the content of such letters. Apple further admits that Nokia has correctly quoted a portion of Clause 6.2, which speaks for itself.

35. Apple admits that Nokia has correctly quoted a portion of Clause 6.2 of the IEEE-SA Bylaws, which speaks for itself.

36. Apple admits that, pursuant to Clause 6.2 of the IEEE-SA Bylaws, a letter of assurance “is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard’s approval to the date of the standard’s withdrawal.”

37. Apple admits that Nokia has submitted letters of assurance for certain patents-in-suit, including the ‘465 Patent, and that Nokia has properly quoted portions of that letter, which speaks for itself. Apple lacks knowledge or information sufficient to form a belief as to whether those declarations fully complied with IEEE-SA Bylaws.

**F/RAND**

38. Apple admits the allegations of Paragraph 38.

39. Apple admits that an IPR holder that commits to license patents on F/RAND terms and conditions has irrevocably committed to allow the standard to be implemented under its IPR on a F/RAND basis and thereby waived the right to exclude others from practicing the standard under its IPR. Apple also admits that an IPR holder that commits to license patents on F/RAND terms and conditions cannot use its hold-up power resulting from the incorporation of its technology into the standard to extort royalties that do not comply with F/RAND. Apple denies the remaining allegations of Paragraph 39.

40. Apple admits that once an IPR holder has made a F/RAND commitment, all designers have the right to implement the standard in their products and use the inventions from any declared essential IPR, and that there is no need to wait until all the particular F/RAND terms and conditions have been negotiated with the IPR holder or until a definitive license agreement is executed setting out those terms. Apple also admits that Nokia has correctly quoted Clause 3.2 of the ETSI IPR Policy, which speaks for itself. Apple denies the remaining allegations of Paragraph 40.

41. Apple admits the allegations in Paragraph 41.

42. Apple denies the allegations of Paragraph 42.

#### **Apple's Refusal to Pay F/RAND Compensation**

43. Apple admits that Nokia has irrevocably undertaken the obligation to grant license(s) on F/RAND terms and conditions to the patents it declared essential, and that Apple has the corresponding right to obtain licenses on F/RAND terms and conditions on the basis of Nokia's undertakings. Apple denies the remaining allegations of Paragraph 43.

44. Apple admits that Nokia provided Apple with claim charts and certain information on the method Nokia purportedly used to calculate its proposed royalty. Apple also

admits that Nokia defined both a portfolio rate and an average per patent royalty rate. Apple denies the remaining allegations of Paragraph 44.

45. Apple denies the allegations of Paragraph 45.

46. Apple denies the allegations of Paragraph 46.

#### **OVERVIEW OF THE PATENTS-IN-SUIT**

47. Apple admits that wireless devices today are used for a wide variety of tasks, such as sending email, browsing the Internet, and downloading applications. Apple denies the remaining allegations of Paragraph 47.

48. Apple denies the allegations of Paragraph 48.

49. Apple admits that wireless devices today are used for e-commerce and other purchases. Apple denies the remaining allegations of Paragraph 49.

#### **Wireless Data Patents**

50. Apple admits that the '465 Patent is entitled "Data Transmission in a Radio Telephone Network"; that the '465 Patent indicates that it was issued by the United States Patent and Trademark Office ("USPTO") on September 1, 1998; and that an uncertified copy of the '465 Patent is attached to the Complaint as Exhibit A. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title, and interest in the '465 Patent, and whether Exhibit A is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 50.

51. Apple admits that Nokia has declared the '465 Patent essential to the GSM, UMTS, and IEEE 802.11 standards. Apple denies the remaining allegations contained in Paragraph 51.

52. Apple admits that United States Patent No. 6,359,904 B1 (“‘904 Patent”) is entitled “Data Transmission in a Mobile Telephone Network”; that the ‘904 Patent indicates that it was issued by the USPTO on March 19, 2002; and that an uncertified copy of the ‘904 Patent is attached to the Complaint as Exhibit B. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title and interest in the ‘904 Patent, and whether Exhibit B is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 52.

53. Apple admits that Nokia has declared the ‘904 Patent essential to the GSM and IEEE 802.11 standards. Apple denies the remaining allegations contained in Paragraph 53.

54. Apple admits that United States Patent No. 6,694,135 B1 (“‘135 Patent”) is entitled “Measurement Report Transmission in a Telecommunications System”; that the ‘135 Patent indicates that it was issued by the USPTO on February 17, 2004; and that an uncertified copy of the ‘135 Patent is attached to the Complaint as Exhibit C. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title, and interest in the ‘135 Patent, and whether Exhibit C is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 54.

55. Apple admits that Nokia has declared the ‘135 Patent essential to 3GPP TR 44.060. Apple denies the remaining allegations contained in Paragraph 55.

56. Apple admits that United States Patent No. 6,775,548 B1 (“‘548 Patent”) is entitled “Access Channel for Reduced Access Delay in a Telecommunications System”; that the ‘548 Patent indicates that it was issued by the USPTO on August 10, 2004; and that an uncertified copy of the ‘548 Patent is attached to the Complaint as Exhibit D. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of

all rights, title and interest in the '548 Patent, and whether Exhibit D is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 56.

57. Apple admits that Nokia has declared the '548 Patent essential to the UMTS standard. Apple denies the remaining allegations contained in Paragraph 57.

58. Apple admits that United States Patent No. 7,092,672 B1 ("672 Patent") is entitled "Reporting Cell Measurement Results in a Cellular Communication System"; that the '672 Patent indicates that it was issued by the USPTO on August 15, 2006; and that an uncertified copy of the '672 Patent is attached to the Complaint as Exhibit E. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title, and interest in the '672 Patent, and whether Exhibit E is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 58.

59. Apple admits that Nokia has declared the '672 Patent essential to the GSM standard. Apple denies the remaining allegations contained in Paragraph 59.

#### **Speech Coding Patents**

60. Apple admits that United States Patent No. 5,862,178 ("178 Patent") is entitled "Method and Apparatus for Speech Transmission in a Mobile Communications System"; that the '178 Patent indicates that it was issued by the USPTO on January 19, 1999; and that an uncertified copy of the '178 Patent is attached to the Complaint as Exhibit F. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title, and interest in the '178 Patent, and whether Exhibit F is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 60.

61. Apple admits that Nokia has declared the '178 Patent essential to the GSM standard. Apple denies the remaining allegations contained in Paragraph 61.

62. Apple admits that United States Patent No. 5,946,651 (“‘651 Patent”) is entitled “Speech Synthesizer Employing Post-Processing for Enhancing the Quality of the Synthesized Speech”; that the ‘651 Patent indicates that it was issued by the USPTO on August 31, 1999; and that an uncertified copy of the ‘651 Patent is attached to the Complaint as Exhibit G. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title, and interest in the ‘651 Patent, and whether Exhibit G is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 62.

63. Apple admits that Nokia has declared the ‘651 Patent essential to the GSM standard. Apple denies the remaining allegations contained in Paragraph 63.

#### **Security and Encryption Patents**

64. Apple admits that United States Patent No. 6,882,727 (“‘727 Patent”) is entitled “Method of Ciphering Data Transmission in a Radio System”; that the ‘727 Patent indicates that it was issued by the USPTO on April 19, 2005; and that an uncertified copy of the ‘727 Patent is attached to the Complaint as Exhibit H. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title and interest in the ‘727 Patent, and whether Exhibit H is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 64.

65. Apple admits that Nokia has declared the ‘727 Patent essential to the UMTS standard. Apple denies the remaining allegations contained in Paragraph 65.

66. Apple admits that United States Patent No. 7,009,940 (“‘940 Patent”) is entitled “Integrity Check in a Communication System”; that the ‘940 Patent indicates that it was issued by the USPTO on March 7, 2006; and that an uncertified copy of the ‘940 Patent is attached to the Complaint as Exhibit I. Apple lacks knowledge or information sufficient to form a belief as

to whether Nokia is the current owner of all rights, title, and interest in the '940 Patent, and whether Exhibit I is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 66.

67. Apple admits that Nokia has declared the '940 Patent essential to the UMTS standard. Apple denies the remaining allegations contained in Paragraph 67.

68. Apple admits that United States Patent No. 7,403,621 ("621 Patent") is entitled "System for Ensuring Encrypted Communication After Handover"; that the '621 Patent indicates that it was issued by the USPTO on July 22, 2008; and that an uncertified copy of the '621 Patent is attached to the Complaint as Exhibit J. Apple lacks knowledge or information sufficient to form a belief as to whether Nokia is the current owner of all rights, title and interest in the '621 Patent, and whether Exhibit J is a true and correct copy. Apple denies the remaining allegations contained in Paragraph 68.

69. Apple admits that Nokia has declared the '621 Patent essential to the GSM and UMTS standards. Apple denies the remaining allegations contained in Paragraph 69.

#### **APPLE'S INFRINGEMENT**

70. Apple denies the allegations of Paragraph 70.

#### **HARM TO NOKIA FROM APPLE'S INFRINGEMENT**

71. Apple denies the allegations of Paragraph 71.

72. Apple denies the allegations of Paragraph 72.

73. Apple denies the allegations of Paragraph 73.

**COUNT I**

**INFRINGEMENT OF U.S. PATENT NO. 5,802,465**

74. Apple incorporates by reference its responses to Paragraphs 1-73 of the Answer as if set forth fully herein.

75. Apple denies the allegations of Paragraph 75.

76. Apple denies the allegations of Paragraph 76.

77. Apple denies the allegations of Paragraph 77.

78. Apple denies the allegations of Paragraph 78.

79. Apple denies the allegations of Paragraph 79.

**COUNT II**

**INFRINGEMENT OF U.S. PATENT NO. 5,862,178**

80. Apple incorporates by reference its responses to Paragraphs 1-79 of the Answer as if set forth fully herein.

81. Apple denies the allegations of Paragraph 81.

82. Apple denies the allegations of Paragraph 82.

83. Apple denies the allegations of Paragraph 83.

84. Apple denies the allegations of Paragraph 84.

85. Apple denies the allegations of Paragraph 85.

**COUNT III**

**INFRINGEMENT OF U.S. PATENT NO. 5,946,651**

86. Apple incorporates by reference its responses to Paragraphs 1-85 of the Answer as if set forth fully herein.

87. Apple denies the allegations of Paragraph 87.



88. Apple denies the allegations of Paragraph 88.

89. Apple denies the allegations of Paragraph 89.

90. Apple denies the allegations of Paragraph 90.

91. Apple denies the allegations of Paragraph 91.

#### **COUNT IV**

##### **INFRINGEMENT OF U.S. PATENT NO. 6,359,904**

92. Apple incorporates by reference its responses to Paragraphs 1-91 of the Answer as if set forth fully herein.

93. Apple denies the allegations of Paragraph 93.

94. Apple denies the allegations of Paragraph 94.

95. Apple denies the allegations of Paragraph 95.

96. Apple denies the allegations of Paragraph 96.

97. Apple denies the allegations of Paragraph 97.

#### **COUNT V**

##### **INFRINGEMENT OF U.S. PATENT NO. 6,694,135**

98. Apple incorporates by reference its responses to Paragraphs 1-97 of the Answer as if set forth fully herein.

99. Apple denies the allegations of Paragraph 99.

100. Apple denies the allegations of Paragraph 100.

101. Apple denies the allegations of Paragraph 101.

102. Apple denies the allegations of Paragraph 102.

103. Apple denies the allegations of Paragraph 103.

**COUNT VI**

**INFRINGEMENT OF U.S. PATENT NO. 6,775,548**

104. Apple incorporates by reference its responses to Paragraphs 1-103 of the Answer as if set forth fully herein.

105. Apple denies the allegations of Paragraph 105.

106. Apple denies the allegations of Paragraph 106.

107. Apple denies the allegations of Paragraph 107.

108. Apple denies the allegations of Paragraph 108.

109. Apple denies the allegations of Paragraph 109.

**COUNT VII**

**INFRINGEMENT OF U.S. PATENT NO. 6,882,727**

110. Apple incorporates by reference its responses to Paragraphs 1-109 of the Answer as if set forth fully herein.

111. Apple denies the allegations of Paragraph 111.

112. Apple denies the allegations of Paragraph 112.

113. Apple denies the allegations of Paragraph 113.

114. Apple denies the allegations of Paragraph 114.

115. Apple denies the allegations of Paragraph 115.

**COUNT VIII**

**INFRINGEMENT OF U.S. PATENT NO. 7,009,940**

116. Apple incorporates by reference its responses to Paragraphs 1-115 of the Answer as if set forth fully herein.

117. Apple denies the allegations of Paragraph 117.

118. Apple denies the allegations of Paragraph 118.

119. Apple denies the allegations of Paragraph 119.

120. Apple denies the allegations of Paragraph 120.

121. Apple denies the allegations of Paragraph 121.

**COUNT IX**

**INFRINGEMENT OF U.S. PATENT NO. 7,092,672**

122. Apple incorporates by reference its responses to Paragraphs 1-121 of the Answer as if set forth fully herein.

123. Apple denies the allegations of Paragraph 123.

124. Apple denies the allegations of Paragraph 124.

125. Apple denies the allegations of Paragraph 125.

126. Apple denies the allegations of Paragraph 126.

127. Apple denies the allegations of Paragraph 127.

**COUNT X**

**INFRINGEMENT OF U.S. PATENT NO. 7,403,621**

128. Apple incorporates by reference its responses to Paragraphs 1-127 of the Answer as if set forth fully herein.

129. Apple denies the allegations of Paragraph 129.

130. Apple denies the allegations of Paragraph 130.

131. Apple denies the allegations of Paragraph 131.

132. Apple denies the allegations of Paragraph 132.

133. Apple denies the allegations of Paragraph 133.

## COUNT XI

### DECLARATORY JUDGMENT REGARDING F/RAND RIGHTS

134. Apple incorporates by reference its responses to Paragraphs 1-133 of the Answer as if set forth fully herein.

135. Apple denies the allegations of Paragraph 135.

136. Apple denies the allegations of Paragraph 136.

137. Apple denies the allegations of Paragraph 137.

138. Apple denies the allegations of Paragraph 138

139. Apple denies the allegations of Paragraph 139.

140. Paragraph 140 contains no allegations to which a response is required but, to the extent one is required, Apple denies the allegations of Paragraph 140.

141. Apple denies the allegations of Paragraph 141.

### DEMAND FOR JURY TRIAL

142. Paragraph 142 contains no allegations as to which a response is required.

### APPLE'S DEFENSES TO NOKIA'S COMPLAINT

On information and belief, Apple asserts the following defenses to Nokia's Complaint:

#### First Defense (Non-Infringement)

Nokia is not entitled to any relief against Apple because Apple has not directly or indirectly infringed any valid claim of the '465 Patent, '178 Patent, '651 Patent, '904 Patent, '135 Patent, '548 Patent, '727 Patent, '940 Patent, '672 Patent, and '621 Patent.

#### Second Defense (Invalidity)

One or more of the claims of the Nokia 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 (Unenforceability)**

One or more of the Nokia Asserted Patents are unenforceable against Apple because of estoppel, laches, waiver, unclean hands, and/or other applicable equitable doctrines.

**Fourth Defense (Limitation of Damages)**

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

**Fifth Defense (License)**

Apple denies that the Nokia Asserted Patents are essential to any standard, but to the extent that they are and to the extent any of the alleged inventions described in and allegedly covered by the Nokia Asserted Patents are used, manufactured, or sold by or for Apple, its suppliers, and/or its customers, Apple is licensed under the Nokia Asserted Patents pursuant to an actual or implied license.

**Sixth Defense (Patent Misuse)**

Nokia's deliberate and deceptive non-disclosure of purported essential IPR during the standards-setting process, its false representations to SSOs that it would license on F/RAND terms the patents it belatedly declared essential, and Nokia's assertion of its wrongfully obtained monopoly power against Apple in demanding non-F/RAND license terms from Apple and then suing Apple for patent infringement when Apple refused to accede to those unreasonable demands even though Apple had a license as a matter of law, constitute patent misuse and render the Nokia Asserted Patents unenforceable. Nokia's acts of patent misuse have had anticompetitive effects, including the unlawful and unfair exclusion of alternative technologies

from various Input Technologies Markets defined below, as well as the threat of increased prices to consumers in downstream markets for mobile wireless communications devices. In addition, Nokia's demand for a reciprocal "grantback" license to Apple's non-standards-essential patents as a condition for licensing Nokia's purported essential patents at a F/RAND royalty rate constitutes misuse of Nokia's purported essential patents.

### **COUNTERCLAIMS**

Plaintiff-in-counterclaim 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 against Nokia Corporation and Nokia, Inc. (collectively, "Nokia") as follows:

#### **NATURE OF THE ACTION**

1. These Counterclaims arise from Nokia's baseless allegations of infringement; Nokia's deliberate and deceptive non-disclosure of purportedly essential IPR during the standards-setting process; Nokia's belated and false F/RAND commitments to SSOs and to designers and sellers of products implementing those standards to license its claimed standards-essential patents on F/RAND terms; Nokia's breach of its F/RAND commitments by demanding that Apple agree to non-F/RAND terms for Nokia's claimed standards-essential patents, and then suing Apple for patent infringement after Apple refused to agree to non-F/RAND terms; Nokia's abuse of unlawfully obtained monopoly power; and Nokia's infringement of Apple's patents.

2. Upon information and belief, Nokia claims to be the owner of all rights, titles, and interests in and to the '465 Patent, '178 Patent, '651 Patent, '904 Patent, '135 Patent, '548 Patent, '727 Patent, '940 Patent, '672 Patent, and '621 Patent (collectively, the "Nokia Asserted Patents").

3. An actual case or controversy exists between the parties concerning the infringement, validity, and enforceability of one or more of the claims of the Nokia Asserted Patents.

4. Nokia has accused Apple of infringement of the Nokia Asserted Patents.

5. As Nokia admits in its complaint, the IPR policies of the SSOs relevant to this case require members to use reasonable endeavors to inform the SSO of patents and patent applications that might be essential to a specification, or proposed specification, of the standard. Such disclosure is critical to the standards-setting process because it allows the relevant working group to assess the potential cost of the proposal to those later implementing the standard. As a result of these disclosures, working groups may choose not to incorporate that functionality into a standard (particularly if, as in the case of certain of the Nokia Asserted Patents, the technology represents a *de minimis* modification to the standard), or to incorporate an alternative technology.

6. In its Complaint, Nokia also acknowledges, as it must, that F/RAND commitments are critical to successful standard setting to prevent “hold-up” by claimed standards-essential patent holders; that F/RAND commitments are binding and irrevocable; and that Apple has specific contractual rights, as a member of SSOs, a designer of products implementing those standards, and a beneficiary of Nokia’s F/RAND commitments, to license on F/RAND terms Nokia’s purported standards-essential and F/RAND-committed patents – including the patents that Nokia has asserted in this case, to the extent they are essential to any standard, which Apple denies. Nokia admits in its Complaint that, once it made its F/RAND commitment, all designers, including Apple, have the right to implement any technologies covered by those patents.

7. As described more fully below, Nokia deliberately and deceptively concealed the existence of its IPR from working groups that were considering proposals to standardize the technology purportedly covered by those IPR. Often, Nokia itself introduced and championed the proposals and, in several cases, the named inventor on the patent applications participated in the working group's evaluation of the proposal. Nevertheless, Nokia did not disclose its IPR until after the technology was incorporated into the relevant standard. As Nokia has admitted, such late disclosures of purportedly essential IPR derails the safeguards imposed by SSOs to prevent participants in the standards-setting process from gaining an unlawful monopoly: in Nokia's own words, the late disclosure of claimed-essential IPR is inherently "anticompetitive," and leads to "patent ambush" by patentees.

8. In public statements, Nokia claims that essential patent holders should be compensated based, in part, on the proportion of essential IPR they hold. Accordingly, to increase the size of its purportedly essential patent portfolio, Nokia eventually declared all Nokia Asserted Patents, and others, to ETSI and IEEE (although, as set forth herein, many of those declarations were untimely). With each, Nokia committed to license its patents on F/RAND terms.

9. In public statements including court filings, Nokia admits that "FRAND undertakings under the ETSI IPR policy create binding contractual commitments" and that a patent holder "may not go back on its irrevocable consent to license" its standards-essential IPR. Further, Nokia has expressly rejected the notion that "ETSI FRAND undertakings entail merely an obligation to negotiate in good faith," stating, "This interpretation does not comport with the words of the IPR policy." Indeed, in a letter to a court in prior litigation, Nokia stated that "the



issue before the Court is whether Nokia *has* an irrevocable license [to the patents at issue], subject only to the payment of FRAND terms.”

10. Before its license negotiations with Apple, Nokia also acknowledged that F/RAND royalties must be modest and limited in order to facilitate broad use of standardized technology—as a *quid pro quo* for the benefits (*e. g.*, high-volume industry usage of patented technology) that standardization provides holders of essential patents. But, in its negotiations with Apple, Nokia departed from these well-established F/RAND requirements, and its own prior acknowledgments of the meaning and purpose of F/RAND, and demanded unfair, unreasonable, and discriminatory licensing terms from Apple. In particular, Nokia insisted on both exorbitant royalties and “grantbacks” of licenses to Apple’s patented technology *not related to any standard* – such as, patented technology that would cover proprietary features of Apple’s extraordinarily successful iPhone product line, and then sued Apple for patent infringement when Apple refused to give in to those unreasonable demands, notwithstanding Apple’s license to Nokia’s standards-essential patents by virtue of Nokia’s F/RAND commitments. Nokia’s demands appear to have been driven by declines in its own mobile phone business. In short, Nokia has been attempting to use its allegedly standards-essential patents to help regain what Nokia has lost in the marketplace.

11. Apple brings these Counterclaims to remedy Nokia’s unlawful monopolization, patent misuse, and violation of its F/RAND commitments. Nokia has abused standard-setting processes that are crucial to bringing pro-competitive benefits to innovators, telecommunications equipment and network suppliers, and end consumers alike. Nokia has abused its unlawfully obtained monopoly positions that the standards conferred on its claimed standards-essential technologies and breached its contractual F/RAND commitments by demanding exorbitant

royalties and other unreasonable licensing terms and then suing Apple when Apple refused to accede to Nokia's unreasonable demands. Apple seeks to bring this misconduct to an end and thereby prevent further harm to Apple, the mobile wireless communications industry, and consumers.

12. In addition, Nokia has copied and infringed Apple's innovative technologies. As Anssi Vanjoki, Nokia's Executive Vice President and General Manager of Multimedia, stated at Nokia's GoPlay event in 2007 when asked about the similarities of Nokia's new offerings to the already released iPhone: "[i]f there is something good in the world, we copy with pride." True to this quote, Nokia has demonstrated its willingness to copy Apple's iPhone ideas as well as Apple's basic computing technologies, all the while demanding that Apple pay for access to Nokia's purported standards-essential patents. Apple seeks redress for this behavior.

#### **PARTIES**

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

14. Apple designs and markets a broad range of innovative products including personal computers (*e.g.*, MacBook<sup>®</sup>s, Mac<sup>®</sup> Pro, iMac<sup>®</sup>s), portable digital music players (iPods), and mobile communications devices (iPhones, described in more detail in Paragraphs 19-20, *infra*). Apple also sells a variety of other products and services, including software, peripherals (printers, displays, computer memory, etc.), and networking solutions. In addition, Apple sells a variety of digital content, including music and video, through its on-line iTunes<sup>®</sup> ("iTunes") Store.

15. According to Nokia's Complaint, Nokia Corporation is incorporated under the laws of Finland and has its principal place of business in Finland. Nokia, Inc., Nokia

Corporation's wholly owned United States subsidiary, is incorporated in Delaware, with a principal place of business in Texas.

16. Nokia owns many patents that it claims have been incorporated into various standards for wireless technologies ("purported essential patents"). Nokia sells mobile wireless devices, including "smartphones" (phones with email, Internet, messaging, and/or other advanced features), that compete with Apple's iPhone.

### **JURISDICTION AND VENUE**

17. 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.

18. This Court has diversity jurisdiction over the state law claims asserted in the counterclaim under 28 U.S.C. § 1332 because the amount in controversy exceeds \$75,000 and the case is between Nokia Corporation, a citizen of a foreign state, and Apple, a citizen of California, and the case between Nokia, Inc. and Apple is a case between a citizen of California (Apple) and a company incorporated in Delaware with a principal place of business in Texas (Nokia, Inc.).

19. 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.

20. Nokia Corporation has subjected itself to personal jurisdiction by suing Apple in this District, and, in any event, Nokia, Inc. and Nokia Corporation are subject to personal jurisdiction because they place wireless communication devices in the stream of commerce knowing that such products will be sold in the State of Delaware.

21. Venue is proper in this District under 28 U.S.C. § 1391 and § 1400(b), and under § 12 of the Clayton Act, 15 U.S.C. § 22.

## **BACKGROUND**

### **1. Competition Between Apple and Nokia**

22. Apple's iPhone combines in a single handheld product a mobile phone, a widescreen iPod with touch controls, and an Internet communication platform. Apple released the original iPhone in June 2007. In June 2008, Apple launched iPhone3G, the second-generation iPhone, together with iPhone 2.0 software. It combined the original features of iPhone with high-speed networking, a built-in global positioning system ("GPS"), a 2-megapixel camera, and a 3.5-inch touch widescreen. In June 2009, Apple launched the iPhone3G[S], which offers improved performance (including longer battery life and faster web browsing), a 3-megapixel, autofocus camera, and hands free voice control. iPhone users have access to Apple's iTunes App Store, which offers software applications for the iPhone. Over 100,000 applications are available to iPhone users.

23. The iPhone has become broadly available throughout the United States, Canada, Europe, and Asia, and has become a leading smartphone.

24. Nokia has long been a supplier of wireless handsets and other wireless equipment, including mobile telephones. Nokia enjoyed early success as a supplier of handsets designed primarily for voice communications, but now also supplies smartphone devices, including the ESeries, the NSeries, and the 5000 Series, that include email access, web-browsing features, and the ability to download and play music and video. Nokia recently has introduced several high-end smartphone devices in an attempt to better compete with the iPhone.

25. Nokia has suffered declines in share for its high-end smartphone sales in the United States and worldwide. Recently, Nokia's executive vice president for mobile phones admitted the company was slow to react to the emergence of high-end smartphones, like the iPhone. He candidly conceded that "the market changed suddenly and [Nokia was] not fast enough changing with it." (Abhinav Ramnarayan, "Nokia Fights Back for Share of Smartphone Market," *The Guardian* (London), Sept. 3, 2009, at 24.)

26. By the fourth quarter of 2008, Nokia's worldwide share had dropped to 40.8%, down from 50.9% in the fourth quarter of 2007. Industry reports recognized that Nokia's portfolio was heavily skewed toward low-end devices, and Nokia was exposed to competitive pressure in the higher end of the consumer smartphone segment.

27. In June 2009, Nokia launched the N97, its "flagship mobile computer." Nokia's N97 offers a full QWERTY keyboard, Internet, music, video, maps and navigation, as well as a built in camera. The launch only exacerbated Nokia's struggles. One industry report noted that the N97 launch "met little enthusiasm." Nokia reportedly sold just 500,000 units through August 2009.

28. In the third quarter of 2009, Nokia's share of worldwide smartphone sales reached an "all time low," according to one industry report, down to 39.3%. Nokia's declining smartphone sales, combined with a \$1.4 billion writedown for one of its struggling business units, led to a significant decline in the company's stock value.

29. Having suffered losses in the marketplace, Nokia has resorted to demanding exorbitant royalties from Apple for patents that Nokia claims are essential to various compatibility standards for mobile wireless telecommunications and wireless computing that Apple practices. Nokia also has improperly demanded, as a condition to licensing its patents to

Apple for a F/RAND royalty, that Apple grant Nokia reciprocal licenses (“grantbacks”) to various patented technologies *not essential to any standard*. Nokia’s demands for unreasonable royalties and grantbacks violate the promises Nokia made to the SSOs that developed and adopted these standards: to license purported essential patents on F/RAND terms. Nokia never told SSOs that it would not be willing to license its purported essential patents on F/RAND terms if it considered the prospective licensee to be a threat competitively, or that it would insist on grantbacks to non-standards-essential patents from potential licensees holding patents that Nokia desired to license. Nokia’s demands for unreasonable royalties and grantbacks also directly contradict numerous statements Nokia has made concerning F/RAND commitments in other legal proceedings and other public fora in which Nokia itself demanded F/RAND licenses terms from others.

## **2. Standards Setting Organizations in the Wireless Communications Industry**

30. Mobile wireless carriers offer the consumer access to their “networks” to enable the consumer to, among other things, place and receive calls and access email, the Internet and a variety of services. The handsets sold by Apple and Nokia include a computer chipset that enables the handset to communicate with the carriers’ networks. Most handset designers – including Apple and Nokia – purchase those chipsets from third-party manufacturers.

31. 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.

32. As Nokia admits in its Complaint, 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 – may facilitate product development and network creation. 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.

33. 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 a number of suppliers produce 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.

34. 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. Prior to standardization, the royalty a patentee could 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 would no longer constrain the patentee's ability to demand excessive royalties not warranted by the intrinsic value of the technology.

35. This phenomenon is compounded because designers, such as Apple, invest substantial resources developing products that implement the technical standard. Even if there were an alternative standard – and many times there are not – the costs associated with switching may be prohibitively expensive. The designer who implements a standard thus becomes “locked-in.” Left unconstrained, owners of patents that purportedly cover certain features within the standard could take advantage of lock-in and demand exorbitant royalties from the designers, knowing that it would be less costly for the designer to pay the excessive royalty than to incur the cost of switching. This is commonly referred to as a patent hold-up.

36. Most SSOs – including all those relevant to this action – have adopted IPR policies to address the problem of patent hold-up. These policies set forth requirements concerning: (a) the disclosure of IPR that may claim any portion of the specifications of the standard in development; and (b) whether and to what extent patentees holding such purported essential IPR must commit to licensing these IPR on F/RAND terms and conditions.

37. As Nokia admits in its Complaint, timely disclosure of purported essential IPR permits those participating in standards development to evaluate competing technical proposals with better knowledge of the potential licensing costs that designers may incur when developing standards-compliant products.

38. Additionally, as set forth in greater detail below, the IPR policies at issue in this case require participants claiming to own essential patents to commit to license those patents to any implementer of the standard on F/RAND terms. Those participating in standards



development rely on these contractual undertakings to ensure that the widespread adoption of the standard will not be hindered by patentees seeking to extract unreasonable royalties and terms from those implementing the standard.

39. Breaching F/RAND commitments, as Nokia has done here, undermines the pro-competitive safeguards put in place at SSOs. By seeking to capitalize on 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.

### **3. The Evolution of Mobile Wireless Telecommunications Standards**

40. The 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 that analog networks are ill-equipped to handle high volumes of voice traffic or data transmissions.

41. 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.

42. 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, which have recently been deployed, 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.

43. Nearly all mobile wireless carriers now support 2G technology and in the United States have, or have begun, rolling out 3G networks. As this is happening, fourth generation (4G), known as Long Term Evolution or LTE for GSM-based networks, has been standardized and some carriers are beginning the process of introducing those networks.

*(A) GSM Standards*

44. The most widely implemented digital telecommunications standards worldwide are based on the Global System for Mobile Communications (“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”).

45. In 1988, at the urging of the European Commission, European national posts and telecommunications ministries formed the European Telecommunications Standards Institute (“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.

46. 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.

47. The third generation of the GSM platform is the Universal Mobile Telecommunications System (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.

48. UMTS has been standardized both by ETSI and the 3rd Generation Partnership Project (3GPP). 3GPP is a collaboration among groups of telecommunications associations, including ETSI. Its mission was to develop a globally applicable third generation (3G) mobile phone system specification based on GSM technology.

49. Cellular technology has continued to develop during and after the move to 3G technology. 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. The industry has already undertaken substantial development of technologies that may be implemented in beyond-third-generation (“B3G”) and fourth-generation (“4G”) mobile wireless systems, such as LTE.

***(B) Wi-Fi Standards***

50. “Wi-Fi,” or wireless local area networking (“WLAN”), is a technology that enables wireless access to the Internet over short distances. These networks include access points that are connected to an Ethernet local area network. The access point, or router, communicates using radio signals with computer devices such as notebook computers. Increasingly, smartphones – offering computer-like features – include Wi-Fi compatibility as well.

51. Wi-Fi technology is quickly proliferating in the United States. Access points, or “hot spots,” are common now in homes, offices, hotels, stores, and restaurants. Wi-Fi-compatible handsets, such as the iPhone, offer much faster connection speeds for Internet browsing when the user is near a hotspot, and also permit Internet access in locations that do not have a strong cellular signal.

52. Wi-Fi is based on the 802.11 wireless networking standard developed by the Institute of Electrical and Electronics Engineers (“IEEE”). Work on 802.11 began in the early 1990s. The initial 802.11 protocol (“legacy 802.11”) was released in 1997. Since then, IEEE has issued many amendments, the most important of which are 802.11a (released in 1999), 802.11b (released in 1999), and 802.11g (released in 2003).

**NOKIA’S DELIBERATE NON-DISCLOSURE OF AND FALSE COMMITMENTS CONCERNING ITS PURPORTED ESSENTIAL INTELLECTUAL PROPERTY**

53. Because SSOs – including ETSI and its organizational partner 3GPP, and IEEE – purportedly incorporated Nokia’s patented technology into the relevant standards per Nokia proposals, Nokia has the ability to demand and potentially extract exorbitant royalties and unreasonable terms for patents it asserts are essential to the GSM, GPRS, EDGE, UMTS, and WLAN standards. In order to ensure incorporation into the standard and to avoid the SSO’s consideration of the cost of standardizing patented technology, Nokia deliberately and deceptively did not disclose during the standard-setting process IPR that it now claims are essential to the standard. In fact, in many cases, a named inventor on the concealed patent application participated in the relevant working group and championed Nokia’s technical proposal. Nokia disclosed its IPR only *after* the relevant standard or standard specification was finalized.

54. If Nokia had disclosed its purportedly standards-essential IPR during the standards-setting process, SSO members would have been able to choose other viable alternative technologies capable of performing functions incorporated in the standard, or declined to incorporate into the standard the functions purportedly covered by Nokia's patents. As detailed below, several of the concealed IPR purportedly cover technologies that represent only *de minimis* modifications over prior releases of the standard and, on information and belief, had the IPR been disclosed, those features would not have been standardized.

55. On information and belief, even though Nokia eventually made F/RAND commitments with respect to those concealed IPR (following standardization), Nokia was motivated to conceal certain of its IPR during the standards-setting process in order to maximize its chances of having the technology accepted into the standard and thereby increase its number of claimed-essential patents. In public statements, Nokia has touted the number of essential patents in its portfolio as justification for its exorbitant royalty demands.

56. Nokia's misuse of its IPR in connection with the standards-setting process continued even after Nokia's eventual disclosure of its IPR. Nokia's belated representations that it would license its purported standards-essential patents on F/RAND terms were false; Nokia explicitly promised not to exploit the "hold-up" power it now abusively seeks to wield. Even putting aside the untimeliness of Nokia's F/RAND commitments, had Nokia further disclosed that it would not offer F/RAND licenses terms to all implementing the standard, SSO members would have either removed Nokia's purported IPR from the pertinent standard in favor of other viable alternative technologies capable of performing functions incorporated in the standard, or declined to incorporate the feature into the standard. (ETSI IPR Policy Clause 8.1.1, 8.1.2.) Even if Nokia had made timely disclosures of its IPR (which it did not), Nokia's efforts to

extract non-F/RAND royalties and its insistence on grantbacks of non-standards-essential patents are both unfair and anticompetitive and violate the F/RAND commitment that is a condition for inclusion in the pertinent standard.

**1. Nokia's Participation in ETSI, and its FRAND Commitments**

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

58. 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. In particular, Clause 4.1 provides that:

[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.

59. 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 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.

60. As Nokia admits in its Complaint, 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.

61. As Nokia also admits in its Complaint, ETSI's IPR policy was designed to benefit all ETSI members, as well as 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."

62. During all times relevant to these allegations, Nokia has been a member of ETSI. Nokia has participated in ETSI's development of mobile wireless communications standards for GSM, GPRS, EDGE, and UMTS. As a result of its membership and participation in ETSI, Nokia was and is bound by the ETSI Rules of Procedure, including the ETSI IPR Policy.

63. Nokia was a member of ETSI throughout ETSI's involvement in the development of the GSM, GPRS, EDGE, and UMTS standards. Nokia has represented to Apple, and has alleged in its Complaint here, that it owns a number of patents that are essential to the GSM, GPRS, EDGE, and UMTS standards and that it disclosed to ETSI. Certain of these patents are identified in Paragraph 1 of Nokia's Complaint.

***(A) Nokia's Deliberate Non-Disclosure Of IPR  
During the Standards-Setting Process***

64. Nokia deliberately failed to disclose the existence of its IPR during the standards-setting process despite the fact that, in many cases, Nokia personnel (including named inventors on the concealed patent applications) participated in the relevant working groups and pushed for adoption of the relevant technology into the standard. Indeed, Nokia's non-disclosure of IPR at issue in this case prior to adoption of the standard reflects a pattern of abuse of the standards-setting process. For example:

(a) Nokia asserts that the '621 patent, which purports to claim "a system for ensuring encrypted communication after handover," is essential to specification 25.331 of UMTS, yet Nokia concealed the existence of its IPR during the standards-setting process. In particular, the claimed priority date for the '621 patent (based on the filing of a related, foreign application) is November 2000. A few months later, in February 2001, Nokia filed a second foreign priority application related to the '621 patent and then, a week later, submitted a request to the security working group proposing the addition of the technology Nokia now claims is covered by the patent to specification 25.331. Valtteri Niemi, one of the named inventors on the '621 patent, participated in the relevant standards working groups and pushed for the adoption of the technology. In March 2001, Nokia's proposal was adopted. Nokia, however, did not disclose the existence of its IPR as essential to the UMTS standard until three years later, in July 2004.

(b) Nokia asserts that the '672 patent, which purports to claim "reporting cell measurement results in a cellular communication system," is essential to the GSM standard, yet Nokia concealed the existence of its IPR during the standards-setting process. In particular, the claimed priority date for the '672 patent (based on the filing of



a related, foreign patent application) is September 1999. Shortly thereafter, in November 1999, Nokia – including a named co-inventor on that patent, Johanna Pekonen – introduced a proposed change to the standard that would incorporate the technology purportedly covered by the ‘672 patent. Nokia participated in working group meetings over the course of the next five months until, in April 2000, Nokia’s proposal was incorporated into the GSM standard. Nokia, however, did not disclose its IPR until December 2001.

(c) Nokia asserts that the ‘178 patent, which purports to claim a “method and apparatus for speech transmission in a mobile communications system,” is essential to GSM, yet Nokia concealed the existence of its IPR during the standards-setting process. In particular, the claimed priority date for the ‘178 patent (based on the filing of a related, foreign patent application) is July 11, 1994. In or about June 1996, Nokia proposed an amendment to the GSM speech and channel coding specifications related to TS 05.03, which Nokia apparently claims is covered by the ‘178 patent. One of the named inventors, Kari Järvinen, participated in the consideration of the proposal, which purportedly was adopted for inclusion in GSM in June 1996. Nokia, however, did not declare its IPR until November 1997, at the earliest.

(d) Nokia asserts that the ‘940 patent, which purports to claim an “integrity check in a communication system,” is essential to specification 33.102 of the UMTS standard, yet Nokia concealed the existence of its IPR during the standards-setting process. In particular, the claimed priority date for the ‘940 patent (based on the filing of a related, foreign patent application) is February 2000. A proposal to adopt the technology Nokia now claims is covered by the ‘940 patent was proposed at least as early

as April 2000, just two months following the UK filing. One of the named inventors (Niemi), in fact, participated in the April 2000 working group meeting at which the proposal was adopted and suggested in February 2000 to other working groups that other standards should be changed to reflect the same technology. Nokia, however, did not disclose its IPR until December 2001.

65. Nokia's relevant technological proposals, including those cited above, offered only *de minimis* modifications of the existing standard, were met with resistance by working groups as being unnecessary, and/or reflected just one of number of alternative methods of accomplishing the same function. Accordingly, on information and belief, had Nokia properly disclosed the existence of its IPR, the relevant working group would have decided not to incorporate that proposal into the standard or would have selected an available alternative technology. For example, with respect to the '621 patent, reports from the working group meetings indicate that participants in the working group for specification 25.331 were resistant to the proposed amendment on the grounds that the technical proposal was overly complicated and the amendment was unnecessary; and the '940 patent purportedly covers a Nokia proposal addressing a problem that the patent itself concedes "may only arise in a limited number of circumstances."

***(B) Nokia's False FRAND Commitments***

66. As Nokia admits in its Complaint, Nokia has submitted declarations to ETSI, committing to grant irrevocable licenses to its purported essential patents on FRAND terms pursuant to Clause 6.1 of ETSI's IPR policy. Under applicable law, making a FRAND commitment by itself confers a right to implement standards-essential patents and constitutes the grant of a license to all parties practicing the relevant standards, foreclosing the patentee from claiming infringement of its patents.

67. For any of Nokia's purported essential patent rights that were timely disclosed, Nokia's FRAND declarations were intended to induce ETSI and its members to adopt standards based on technology that Nokia claims is covered by Nokia's patents.

68. For all of the Nokia Asserted Patents, any that were timely disclosed and all that were not, Nokia's FRAND declarations accompanying those disclosures falsely represented that Nokia would provide FRAND license terms. None of Nokia's F/RAND declarations covering any of the Asserted Patents disclosed that Nokia would attempt to extract whatever excessive royalties it could, and/or demand other unreasonable terms such as grantbacks of licenses for non-essential patents, from parties practicing the relevant standards, or at the very least from parties that Nokia perceived as a threat competitively.

69. Before the adoption of the relevant standards, device manufacturers had available to them other viable alternative technologies capable of performing the functions that are now included in the standards and that Nokia now asserts are performed by its patented technologies. Once the ETSI participants selected technologies that Nokia claims are covered by its patents, all alternative technologies capable of performing those functions were excluded from the relevant Input Technologies Markets (defined below). Accordingly, to the extent that the Nokia Asserted Patents are essential to any standard, which Apple denies, it was Nokia's untimely disclosure of its IPR and its false F/RAND declarations – not the inherent attributes of its purportedly essential technologies – that conferred monopoly power on Nokia with respect to the technologies that perform the functions included in the standards.

70. As Nokia admits in its complaint, Nokia'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 GSM, GPRS, EDGE, or UMTS (or any other ETSI standards for which Nokia declared essential IPR and undertook a FRAND commitment). Nokia is therefore bound to offer FRAND license terms in accordance with Clause 6.1 of ETSI's IPR policy to Apple, a seller of products that implement the relevant standards and presently a member of ETSI.

71. Apple, other members of ETSI, and other companies implementing ETSI standards have reasonably relied on Nokia's FRAND commitments: to (a) grant licenses to those patents and patents under application Nokia claims are essential to implement an ETSI standard on fair, reasonable, and non-discriminatory terms; and (b) not to seek to impose unfair, unreasonable, and discriminatory conditions on licensing such as grantbacks of patents not essential to any standards but covering proprietary technology. In particular, they have relied on these commitments to ensure that the royalties Nokia charged, and the terms on which it licensed, would permit efficient competitors such as Apple to offer standards-compliant products profitably in competition with Nokia and other owners of purported essential patents.

72. Apple has invested substantial resources in developing and marketing its iPhone products in reliance on Nokia's FRAND commitments.

## **2. Nokia's Participation in IEEE, and its RAND Assurances**

73. The IEEE Standards Association, has, among other things, managed the development of the 802.11 (WLAN) standard and its amendments. Under the IEEE's IPR policy, when participants learned of patents or patent applications that might be essential to standards, IEEE would request "letters of assurance" from the owners of that intellectual property.

74. The letters of assurance sought by IEEE provide either a general disclaimer that the patentee will not enforce the patent(s), or a promise by the patentee that it will license the

patent(s) to an unrestricted number of applicants at either no cost or under reasonable terms and conditions that are demonstrably free of any unfair discrimination (*i.e.*, on RAND terms).

75. IEEE's IPR policy also states that if any party submitting a letter of assurance with respect to certain patents becomes aware of additional essential patents not covered by prior letter(s) of assurance, it must submit an additional assurance for the newly discovered patent(s).

76. According to IEEE's IPR policy, letters of assurances, once provided, are irrevocable and shall be in force at least until the standard is withdrawn. Additionally, any subsequent assignee and transferee of the patent(s) must agree to abide by any assurances in place.

77. If the letters of assurance were not provided for essential patents, the IEEE working group would either revise the standard so that compliance could be achieved without infringing the patent(s), or discontinue work on the standard altogether.

78. Nokia has represented to Apple, and alleges in its Complaint, that it owns a number of patents that are essential to comply with the WLAN standard. Some of these patents are identified in Paragraph 1 of Nokia's Complaint.

79. As Nokia admits in its Complaint, Nokia submitted letters of assurance to IEEE with respect to certain of its patents, including patents-in suit.

80. When Nokia made its RAND declarations to IEEE, Nokia falsely represented that it would provide licenses on RAND terms and failed to disclose that it would attempt to extract whatever excessive royalties it could, and/or to demand other unreasonable terms such as grantbacks of patent licenses, from parties practicing the relevant standards, or at the very least from parties that Nokia perceived as a threat competitively.

81. Before the adoption of the standard, device manufacturers had available to them alternative technologies capable of performing the functions that are now included in the standards and that Nokia now asserts are performed by its patented technologies. Once the IEEE participants selected the technologies embodied in the standard, all alternative technological solutions for those functions were excluded from the relevant Input Technologies Markets (defined below). Accordingly, to the extent that the Nokia Asserted Patents are essential to any standard, which Apple denies, it was the false RAND declarations – not the inherent attributes of its purportedly essential technologies – that conferred monopoly power on Nokia with respect to the technologies that perform the functions included in the standards.

82. As Nokia admits in its Complaint, Nokia's letters of assurance are binding contractual commitments to IEEE, its members, and designers and sellers of products implementing IEEE standards (including Apple), for the benefit of IEEE members and any entity that implements the 802.11 standard. Nokia is therefore bound by its agreements to offer RAND license terms to Apple, a seller of products that implement the relevant standard and participates in IEEE.

83. Apple, other companies participating in the development of Wi-Fi in IEEE, and other companies implementing the WLAN standard reasonably relied on Nokia's RAND commitment to license patents it claims are essential on reasonable and non-discriminatory terms. In particular, they relied on these commitments to ensure that the royalties Nokia charged and the terms on which it licensed would permit efficient competitors such as Apple to offer standards-compliant products profitably in competition with Nokia and other owners of essential patents.

84. Apple has invested substantial resources in developing and marketing its products, including its iPhone products, in reliance on Nokia's letters of assurance concerning the WLAN standard.

**NOKIA'S BREACH OF ITS CONTRACTUAL OBLIGATION TO LICENSE ITS  
PURPORTED ESSENTIAL PATENTS ON F/RAND TERMS**

85. Although Nokia admits that it made F/RAND commitments to ETSI and IEEE, and although Nokia concedes that it was thereby obligated to offer Apple F/RAND license terms, Nokia has refused to extend F/RAND licensing terms to Apple for any of Nokia's purported essential patents. Instead, Nokia has demanded of Apple royalties and other terms that are unfair, unreasonable, and discriminatory, and then instituted infringement litigation against Apple when Apple refused to yield to those demands.

86. Specifically, in or about late 2007, Apple and Nokia began negotiating a licensing agreement for Nokia's portfolio of patents that Nokia claims are essential to the GSM, GPRS, EDGE, and UMTS standards.

87. Throughout the negotiations, Apple made clear to Nokia that, except for one specific family of patents, Apple would not agree to cross-license to Nokia any of its patents (in particular those relating to iPhone technology) that were not essential to relevant industry standards, such as GSM, GPRS, EDGE, and UMTS.

88. Apple has no obligation, under any law or otherwise, to license these non-standards-essential patents to Nokia. Thus, Nokia is seeking unlawfully and unfairly to leverage the monopoly power it wrongly obtained in the Input Technologies Markets (defined below) from its untimely disclosures and its false F/RAND commitments to SSOs to obtain licenses to Apple's proprietary technology (to which Nokia is not entitled) that would enable Nokia to try to develop products with features now unique to the iPhone. Nokia's demand for license terms that

are unfair, unreasonable, and discriminatory constitutes a breach of Nokia's F/RAND commitments.

89. In particular, in or about the spring of 2008, Nokia demanded that, as part of its compensation for licensing Nokia's portfolio of purported essential patents, Apple must grant Nokia a license to a particular number of Apple non-standards-essential patents – and that Nokia could then, during the term of the license, “pick” the specific Apple patents for which Nokia would take a license. Apple immediately rejected the proposal and reiterated Apple's position that Nokia's F/RAND obligations required it to license Nokia's purportedly essential technologies on fair, reasonable, and non-discriminatory terms whether or not Apple was interested in licensing to Nokia Apple's non-standards-essential patents – which Apple was not.

90. Approximately a year later, in or about May 2009, Nokia demanded a royalty approximately three times as much as the royalty proposed the prior spring, which was itself in excess of a F/RAND rate, as well as “picks” to Apple's non-standards-essential patents. Nokia never represented that its 2008 demand was below F/RAND, and its tripling of that demand in May 2009 was in flagrant violation of its F/RAND commitments. Apple again refused to agree to this non-F/RAND royalty demand or to provide “picks” to its non-standards-essential patents.

91. Finally, Nokia made demands in or about September 2009, just prior to filing suit, for highly excessive royalties virtually identical to those sought by Nokia two years earlier at the outset of the parties' negotiation, and sought equally unfair, unreasonable, and excessive royalties for patents it claimed were essential to the WLAN standard. When Apple declined to accede to Nokia's unreasonable demands, Nokia filed suit against Apple for infringement, even though Apple has a license to practice the relevant standards as a result of Nokia's F/RAND commitments.



92. Throughout the negotiation process, Nokia blatantly attempted to circumvent its contractual obligation to offer non-discriminatory licensing terms to Apple. While Nokia said it was offering Apple its “standard” royalty terms, Nokia repeatedly refused Apple’s requests to substantiate that naked representation. Nokia refused to provide any information about what other licensees were paying for the same standards-essential patent rights (even on an aggregated or anonymous basis), and, indeed, demanded that any licensing terms between Nokia and Apple also be shrouded in secrecy. Thus, despite its obligation to offer Apple non-discriminatory license terms, Nokia effectively denied Apple that opportunity.

**NOKIA HAS ENGAGED IN ANTICOMPETITIVE AND UNFAIR CONDUCT  
THAT HAS INJURED AND WILL INJURE APPLE AND COMPETITION  
IN THE INPUT TECHNOLOGIES MARKETS**

93. Nokia’s unlawful conduct has had and will continue to have a substantial anticompetitive effect on several Input Technologies Markets defined below.

94. In developing the standards at issue here, SSO participants sought to select the appropriate technology to provide each individual function required for the relevant standard. SSO participants evaluated whether to incorporate a proposed functionality and selected among viable alternative competing technologies that were capable of performing each function they decided to incorporate into the standard. They made these decisions based on technical and commercial merit and intellectual property considerations, including whether the proposed technology was protected by disclosed IPR and, if so, whether the party claiming to own that technology had committed to make it available on F/RAND terms. Before the SSOs adopted the standard, there were multiple competing alternative technology solutions in markets consisting of input technologies to perform each relevant function. Ultimately, the decisions whether to incorporate a proposed functionality, and which technology to incorporate, are driven in part by consideration of potential licensing costs.

95. Each GSM, GPRS, EDGE, UMTS, and WLAN standard 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 standard.

96. Because each of the standards at issue here specifies a set of distinct technologies to perform the various functions within the standard, once a standard was adopted, with respect to those functions that are in fact essential, there were, by definition, no substitutes for the standardized technologies on which each technology is based.

97. Once SSO participants selected a single technology to perform a particular function needed to practice a standard, all alternative technologies capable of performing that function were effectively excluded from potential use by device manufacturers such as Apple to perform that function. Thus, the selection of a particular, essential technology in that standards-setting process reduced to a single option the technology to perform each such essential function necessary to practice the standard. Parties implementing the standard such as Apple are thus “locked-in” to the technology.

98. If the 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.

99. Nokia claims to own patents essential to practice the technologies that are used for certain individual functions of the GSM standard, the GPRS standard, the EDGE standard, the UMTS standard, and the WLAN standard.

100. The relevant markets in which to assess the anticompetitive effects of Nokia’s conduct, therefore, are the various markets for technologies that – before the standards were

implemented – were competing to perform each of the various functions covered by each of Nokia’s purported essential patents for the GSM standard, the GPRS standard, the EDGE standard, the UMTS standard, and the WLAN standard (collectively, the relevant “Input Technologies Markets”). Each functionality, therefore, comprises its own relevant market for antitrust purposes. Prior to standardization, the sellers in these Input Technologies Markets were the companies producing technologies capable of performing each of the functions incorporated in the standard, and the buyers were device manufacturers that either acquired these technology inputs or developed them themselves.

101. The standards described above are employed throughout the world. Accordingly, the geographic scope of each of the relevant Input Technologies Markets described above is worldwide.

102. If Nokia in fact has patents covering technologies that have been incorporated into the relevant standards, it has the power to raise price and exclude competition with respect to each of the technologies covered by its patents and incorporated in the relevant standards, and acquired that power as a result of its misconduct in connection with the standards-setting process, including untimely disclosure of its IPR and belated and false F/RAND commitments. Barriers to entry into these markets are high because, among other reasons, no new technology can replace the technologies the standards specify to perform functions included in the standards.

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

103. Nokia deliberately and deceptively failed to disclose in a timely manner IPR that it now claims are essential to the relevant industry standards and then made false and untimely F/RAND commitments. This course of misconduct enabled Nokia to obtain monopoly power in each of the Input Technologies Markets that it could assert against licensees to obtain excessive

royalties. Nokia wrongfully asserted this power when it demanded non-F/RAND license terms from Apple, a more successful competitor in the downstream markets for mobile wireless communications devices in which Apple and Nokia compete, and then sued Apple for patent infringement when Apple declined to accept those terms.

104. By wrongfully obtaining monopoly power in the Input Technologies Markets through non-disclosure of its IPR during the standards-setting process and untimely and false commitments to offer F/RAND license terms to implementers of the various relevant standards, and by wrongfully asserting that power to coerce Apple to accept unreasonable royalty terms by the ultimate threat of an injunction, Nokia seeks to raise the costs of its rival, Apple. Moreover, Nokia's conduct more broadly threatens to further increase royalties and other costs associated with the manufacture and sale of downstream wireless communications devices that implement the GSM, GPRS, EDGE, UMTS, and WLAN standards, resulting in increased prices and decreased quality and innovation for downstream products.

#### **ANTICOMPETITIVE EFFECTS OF NOKIA'S CONDUCT**

105. The foregoing conduct by Nokia 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 standards-setting process and by making untimely and false F/RAND commitments to SSOs, Nokia has improperly foreclosed competition in each of the relevant Input Technologies Markets. Each functionality that is purportedly covered by one of Nokia's claimed essential patents and included in the standard, as well as all technical alternatives that were available prior to standardization, comprise a relevant product market; following standardization, competing,

alternative technologies to perform functions necessary to practice the standard are no longer viable.

(b) Nokia's conduct significantly threatens to further increase costs associated with the manufacture and sale downstream of mobile wireless communications devices that employ the GSM, GPRS, EDGE, UMTS, and WLAN standards.

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

### **CLAIMS FOR RELIEF**

#### **FIRST CAUSE OF ACTION**

##### **(Breach of Contract – F/RAND)**

107. Apple repeats and re-alleges all of the allegations in Paragraphs 1 through 106 above, as if set forth fully herein.

108. As set forth above, by committing to license its purported essential patents to adopters of the GSM, GPRS, EDGE, and UMTS standards on FRAND terms, Nokia entered into express or implied contractual commitments with ETSI, ETSI's members, and designers and sellers of products that implement ETSI standards.

109. Further, by committing to license its purportedly essential patents to adopters of the WLAN standard on RAND terms, Nokia entered into express or implied contractual commitments with IEEE, IEEE's members, and designers and sellers of products that implement the WLAN standard.

110. Each potential third party implementing the GSM, GPRS, EDGE, UMTS, and WLAN standards – including Apple – is an intended third party beneficiary of Nokia's contractual commitments to ETSI and IEEE. It was material, indeed critical, to Nokia's

contractual commitments to ETSI and IEEE that Nokia offer F/RAND licensing terms to all adopters of the GSM, GPRS, EDGE, UMTS, and WLAN standards -- including Apple.

111. Nokia breached these contracts by refusing to offer licenses to patents it claims are essential to the various standards on F/RAND terms and instead demanding unfair, unreasonable, and discriminatory royalties and other concessions such as grantbacks of licenses to Apple's non-standards essential patents, and by seeking an injunction against Apple's practicing the patents it claims are essential to the various mobile wireless standards.

112. 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 a suit against it for patent infringement notwithstanding its license to Nokia's purported standards-essential patents, and is threatened, in particular, by 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.

## **SECOND CAUSE OF ACTION**

### **(Promissory Estoppel)**

113. Apple repeats and re-alleges the allegations in Paragraphs 1 through 112 above as if set forth fully herein.

114. Nokia made clear and definite promises to potential licensees through its commitments to various SSOs that it would license its purported essential patents on F/RAND terms.

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

116. Apple developed and marketed its products and services in reliance on Nokia's promises, as described above, including making its products and services compliant with GSM, GPRS, EDGE, UMTS, and WLAN technical standards.

117. Nokia is estopped from renegeing on these promises to the various SSOs, their members and designers and sellers of products implementing those standards, under the doctrine of promissory estoppel.

118. Apple has been harmed as a result of its reasonable reliance on Nokia's promises. Apple has been forced to expend resources resolving this licensing dispute, including defending a suit against it for patent infringement notwithstanding its license to Nokia's purported standards-essential patents, 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.

### **THIRD CAUSE OF ACTION**

#### **(Violation of Section 2 of the Sherman Act, 15 U.S.C. § 2)**

119. Apple restates and incorporates by reference the allegations in paragraphs 1 through 118 above as if set forth fully herein.

120. Nokia has unlawfully monopolized each of the relevant Input Technologies Markets by deliberately and deceptively not disclosing prior to standardization IPR that purportedly cover essential elements of the standard, by making untimely and false commitments to license those IPR on F/RAND terms, by breaching its commitments to license all of its purported standards-essential IPR on F/RAND terms, and by suing Apple for patent infringement when Apple refused to accede to Nokia's unreasonable demands even though Apple had a

license as a matter of law. Nokia has undertaken this cumulative course of misconduct with the intent to monopolize the relevant Input Technologies Markets.

121. The geographical scope of each of the relevant Input Technologies Markets is worldwide.

122. On information and belief, had Nokia disclosed its IPR in a timely manner or disclosed its true intent not to offer a F/RAND license terms to all implementing the standard, the relevant functionality would not have been incorporated into the standard at all, or an alternative technology performing the same functionality would have been adopted instead, and, thus, Nokia would not have obtained monopoly power in the relevant Input Technologies Markets. In particular, had the members of the relevant ETSI working groups known that the technology under consideration was covered by Nokia's IPR, it would have elected not to incorporate functionality that offered merely a *de minimis* modification of the existing standard, or it would have incorporated an alternative technology. Had the members of the relevant ETSI working group known that Nokia's belated F/RAND commitments were false, the ETSI IPR Policy provides a mechanism to redesign the standard to render the IPR non-essential and, on information and belief, ETSI would have done so.

123. Because Nokia's non-disclosure and false F/RAND commitments proximately resulted in the incorporation of the claimed technology into the standard, Nokia has therefore unlawfully excluded competing technologies from each of the relevant Input Technologies Markets and unlawfully acquired monopoly power in those markets.

124. As a direct and proximate result of Nokia'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 Nokia has abused its wrongfully-obtained monopoly power, Apple has been forced to expend significant resources including protracted, unsuccessful license negotiations. Moreover, Apple also incurred substantial costs in defending against Nokia's baseless patent infringement claims, which were brought when Apple refused to yield to Nokia's unreasonable terms, despite Apple's license to Nokia's Asserted Patents by virtue of Nokia's F/RAND commitments.

#### **FOURTH CAUSE OF ACTION**

##### **(Declaratory Judgment that Nokia's offers have not been on F/RAND terms)**

125. Apple restates and incorporates by reference the allegations in Paragraphs 1 through 124 above as if set forth fully herein.

126. There is a dispute between the parties concerning whether the terms which Nokia has offered Apple for its license to Nokia's purported essential patents are fair, reasonable, and nondiscriminatory. Nokia has alleged in its Complaint that it has offered Apple a license on such terms, and as set out above, Apple vigorously denies this.

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

128. Apple is entitled to a declaratory judgment that Nokia has not to date offered F/RAND license terms to Apple.

#### **FIFTH CAUSE OF ACTION**

##### **(Declaratory Judgment of No Entitlement to Injunctive Relief)**

129. Apple restates and incorporates by reference the allegations in Paragraphs 1 through 128 above as if set forth fully herein.

130. There is a dispute between the parties whether Nokia is entitled to injunctive relief in the event that it prevails on any of its patent infringement claims. Despite having admitted and contended in other litigation that a patent holder waives all rights to seek injunctive relief upon making a F/RAND commitment, Nokia seeks injunctive relief against Apple in its Complaint. Apple contends, as Nokia has contended in other litigation, that Nokia's sole remedy in this case is to seek payment of royalties on F/RAND terms.

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

132. Apple is entitled to a declaratory judgment that Nokia is not entitled to injunctive relief even if it proves patent infringement.

#### **SIXTH CAUSE OF ACTION**

##### **(Declaratory Judgment of Patent Misuse)**

133. Apple restates and incorporates by reference the allegations in paragraphs 1 through 132 above as if set forth fully herein.

134. Nokia has sued Apple for patent infringement, and the parties dispute whether Nokia's asserted patents are enforceable. The dispute is of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

135. Nokia deliberately and deceptively failed to disclose certain IPR during the standards-setting process and then disclosed those patents only after the claimed technology had been incorporated into the relevant standard. Nokia's representations to SSOs that it would license the patents it declared essential, including the patents-in-suit, on F/RAND terms were both untimely and false. Nokia breached those commitments by refusing to offer F/RAND licensing terms for IPR it claims are standards-essential and then sued Apple for patent

infringement when Apple refused to accede to Nokia's unreasonable demand even though Apple had a license as a matter of law. This course of misconduct enabled Nokia to obtain monopoly power in each of the Input Technologies Markets, and Nokia's assertion of its wrongfully obtained monopoly power against Apple in an effort to extract non-F/RAND royalties constitutes patent misuse.

136. In particular, in addition to demanding an excessive royalty rate, Nokia's demand for a grantback license to Apple's non-standard essential patents as a condition for licensing Nokia's purported essential patents at a FRAND royalty rate constitutes misuse of Nokia's purported essential patents.

137. The anticompetitive effects of Nokia's patent misuse include injury to competition in the Input Technologies Markets, threatened injury to competition in downstream markets for mobile wireless communication devices and threatened injury to consumers as a result of the inevitable passing on to consumers of improper royalties demanded by Nokia.

138. Apple is entitled to a declaratory judgment that Nokia's course of misconduct in connection with the standards-setting process described above constitutes misuse of Nokia's purported standards-essential patents (including the Nokia Asserted Patents) rendering them unenforceable.

#### **SEVENTH CAUSE OF ACTION**

##### **(Declaratory Judgment of Non-Infringement of the '465 Patent)**

139. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

140. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '465 Patent.

141. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '465 Patent.

**EIGHTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '465 Patent)**

142. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

143. One or more claims of the '465 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.

144. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '465 Patent is invalid.

**NINTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '178 Patent)**

145. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

146. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '178 Patent.

147. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '178 Patent.

**TENTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '178 Patent)**

148. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

149. One or more claims of the '178 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.

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

**ELEVENTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '651 Patent)**

151. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

152. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '651 Patent.

153. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '651 Patent.

**TWELFTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '651 Patent)**

154. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

155. One or more claims of the '651 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.

156. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '651 Patent is invalid.

**THIRTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '904 Patent)**

157. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

158. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '904 Patent.

159. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '904 Patent.

**FOURTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '904 Patent)**

160. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

161. One or more claims of the '904 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.

162. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '904 Patent is invalid.

**FIFTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '135 Patent)**

163. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

164. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '135 Patent.

165. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '135 Patent.

**SIXTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '135 Patent)**

166. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

167. One or more claims of the '135 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.

168. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '135 Patent is invalid.

**SEVENTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '548 Patent)**

169. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

170. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '548 Patent.

171. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '548 Patent.



**EIGHTEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '548 Patent)**

172. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

173. One or more claims of the '548 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.

174. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '548 Patent is invalid.

**NINETEENTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '727 Patent)**

175. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

176. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '727 Patent.

177. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '727 Patent.

**TWENTIETH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '727 Patent)**

178. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

179. One or more claims of the '727 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.

180. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '727 Patent is invalid.

**TWENTY-FIRST CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '940 Patent)**

181. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

182. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '940 Patent.

183. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '940 Patent.

**TWENTY-SECOND CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '940 Patent)**

184. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

185. One or more claims of the '940 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.

186. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '940 Patent is invalid.

**TWENTY-THIRD CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '672 Patent)**

187. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

188. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '672 Patent.

189. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '672 Patent.

**TWENTY-FOURTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '672 Patent)**

190. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

191. One or more claims of the '672 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.

192. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '672 Patent is invalid.

**TWENTY-FIFTH CAUSE OF ACTION**

**(Declaratory Judgment of Non-Infringement of the '621 Patent)**

193. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

194. Apple has not directly or indirectly infringed and is not directly or indirectly infringing any valid claim of the '621 Patent.

195. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia'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 '621 Patent.

**TWENTY-SIXTH CAUSE OF ACTION**

**(Declaratory Judgment of Invalidity of the '621 Patent)**

196. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 138 as if set forth fully herein.

197. One or more claims of the '621 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.

198. To resolve the legal and factual questions raised by Nokia and to afford relief from the uncertainty and controversy that Nokia's accusations have precipitated, Apple is entitled to a declaratory judgment that the '621 Patent is invalid.

**TWENTY-SEVENTH CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 5,634,074)**

199. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

200. On May 27, 1997, the United States Patent and Trademark Office ("USPTO") duly and legally issued U.S. Patent No. 5,634,074 (the "'074 Patent") entitled Serial I/O Device Identifies Itself to a Computer Through a Serial Interface During Power on Reset Then it is Being Configured by the Computer. A copy of the '074 Patent is attached as Exhibit A. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '074 Patent, including the right to sue and collect for damages for past infringement.

201. Nokia has infringed and continues to infringe at least one claim of the '074 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe

one or more of the claims of the '074 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia products having USB functionality, including, but not limited to, the Nokia E71.

202. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit.

203. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '074 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

204. Nokia's continued infringement of the '074 Patent has and will continue to cause irreparable injury to Apple unless Nokia's infringement activities are enjoined by this Court.

**TWENTY-EIGHTH CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 5,555,369)**

205. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

206. On September 10, 1996, the USPTO duly and legally issued U.S. Patent No. 5,555,369 (the "'369 Patent") entitled Method of Creating Packages for a Pointer-Based Computer System. A copy of the '369 Patent is attached as Exhibit B. By assignment, Apple

has acquired and continues to maintain all rights, title, and interest in and to the '369 Patent, including the right to sue and collect for damages for past infringement.

207. Nokia has infringed and continues to infringe at least one claim of the '369 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '369 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Carbide.c++, applications developed using Carbide.c++, and phones having applications developed using Carbide.c++.

208. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit.

209. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '369 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

210. Nokia's continued infringement of the '369 Patent has and will continue to cause irreparable harm.

**TWENTY-NINTH CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 6,239,795 B1)**

211. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

212. On May 29, 2001, the USPTO duly and legally issued U.S. Patent No. 6,239,795 B1 (the “‘795 Patent”) entitled Pattern and Color Abstraction in a Graphical User Interface. A copy of the ‘795 Patent is attached as Exhibit C. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the ‘795 Patent, including the right to sue and collect for damages for past infringement.

213. Nokia has infringed and continues to infringe at least one claim of the ‘795 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the ‘795 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia handsets using the Series 40, S60 and/or Symbian platforms, including, but not limited to, the Nokia 5310, the Nokia E71, and the Nokia N900.

214. Nokia reviewed Apple’s patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia’s commencement of this lawsuit.

215. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the ‘795 Patent that justifies an increase of up to three times the damages to be



assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

216. Nokia's continued infringement of the '795 Patent has and will continue to cause irreparable harm.

### **THIRTIETH CAUSE OF ACTION**

#### **(Infringement of U.S. Patent No. 5,315,703)**

217. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

218. On May 24, 1994, the USPTO duly and legally issued U.S. Patent No. 5,315,703 (the "'703 Patent") entitled Object-Oriented Notification Framework System. A copy of the '703 Patent is attached as Exhibit D. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '703 Patent, including the right to sue and collect for damages for past infringement.

219. Nokia has infringed and continues to infringe at least one claim of the '703 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '703 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia handsets using the S60 and/or Symbian platform, including, but not limited to, the Nokia E71.

220. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit, including the '703 Patent.

221. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '703 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

222. Nokia's continued infringement of the '703 Patent has and will continue to cause irreparable harm.

### **THIRTY-FIRST CAUSE OF ACTION**

#### **(Infringement of U.S. Patent No. 6,189,034 B1)**

223. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

224. On February 13, 2001, the USPTO duly and legally issued U.S. Patent No. 6,189,034 B1 (the "'034 Patent") entitled Method and Apparatus for Dynamic Launching of a Teleconferencing Application Upon Receipt of a Call. A copy of the '034 Patent is attached as Exhibit E. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '034 Patent, including the right to sue and collect for damages for past infringement.

225. Nokia has infringed and continues to infringe at least one claim of the '034 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '034 Patent, contributorily where the direct infringement occurs

by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia handsets using the Series 40, S60 and/or Symbian platforms, including, but not limited to, the Nokia E71.

226. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit.

227. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '034 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

228. Nokia's continued infringement of the '034 Patent has and will continue to cause irreparable harm.

### **THIRTY-SECOND CAUSE OF ACTION**

#### **(Infringement of U.S. Patent No. 7,469,381 B2)**

229. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

230. On December 23, 2008, the USPTO duly and legally issued U.S. Patent No. 7,469,381 B2 (the "the '381 Patent") entitled List Scrolling and Document Translation, Scaling, and Rotation on a Touch-Screen Display. A copy of the '381 Patent is attached as Exhibit F. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '381 Patent, including the right to sue and collect for damages for past infringement.

231. Nokia has infringed and continues to infringe at least one claim of the '381 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '381 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, the Nokia N900.

232. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit.

233. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '381 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

234. Nokia's continued infringement of the '381 Patent has and will continue to cause irreparable harm.

**THIRTY-THIRD CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 5,455,854)**

235. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

236. On October 3, 1995, the USPTO duly and legally issued U.S. Patent No. 5,455,854 (the "'854 Patent") entitled Object-Oriented Telephony System. A copy of the '854

Patent is attached as Exhibit G. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '854 Patent, including the right to sue and collect for damages for past infringement.

237. Nokia has infringed and continues to infringe at least one claim of the '854 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '854 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia handsets using the S60 and/or Symbian platform, including, but not limited to, the Nokia E71.

238. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit, including the '854 Patent.

239. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '854 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

240. Nokia's continued infringement of the '854 Patent has and will continue to cause irreparable harm.

**THIRTY-FOURTH CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 7,383,453 B2)**

241. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

242. On June 3, 2008, the USPTO duly and legally issued U.S. Patent No. 7,383,453 B2 (the “‘453 Patent”) entitled Conserving Power by Reducing Voltage Supplied to an Instruction-Processing Portion of a Processor. A copy of the ‘453 Patent is attached as Exhibit H. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the ‘453 Patent, including the right to sue and collect for damages for past infringement.

243. Nokia has infringed and continues to infringe at least one claim of the ‘453 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the ‘453 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, the Nokia N900.

244. Nokia reviewed Apple’s patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia’s commencement of this lawsuit.

245. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the ‘453 Patent that justifies an increase of up to three times the damages to be

assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

246. Nokia's continued infringement of the '453 Patent has and will continue to cause irreparable harm.

**THIRTY-FIFTH CAUSE OF ACTION**

**(Infringement of U.S. Patent No. 5,848,105)**

247. Apple repeats and realleges the allegations of the preceding counterclaim Paragraphs 1 – 106 as if set forth fully herein.

248. On December 8, 1998, the USPTO duly and legally issued U.S. Patent No. 5,848,105 (the "'105 Patent") entitled GSMK Signal Processors for Improved Communications Capacity and Quality. A copy of the '105 Patent is attached as Exhibit I. By assignment, Apple has acquired and continues to maintain all rights, title, and interest in and to the '105 Patent, including the right to sue and collect for damages for past infringement.

249. Nokia has infringed and continues to infringe at least one claim of the '105 Patent, either literally or by the doctrine of equivalents, either directly by making, using, selling, offering for sale and/or importing into the United States products and/or services that infringe one or more of the claims of the '105 Patent, contributorily where the direct infringement occurs by the activities of the end users of the products or services, by inducement where the direct infringement occurs by the activities of the end users of the products or services, or otherwise, in violation of 35 U.S.C. § 271. The infringing Nokia products or services include, but are not limited to, Nokia cellular handsets having GSM functionality, including, but not limited to, the Nokia 5310, Nokia E71, and Nokia N900.

250. Nokia reviewed Apple's patent portfolio prior to its filing of this action, and, in addition, Apple has identified various specific patents to Nokia prior to Nokia's commencement of this lawsuit.

251. Nokia has engaged in and/or is now engaging in willful and deliberate infringement of the '105 Patent that justifies an increase of up to three times the damages to be assessed pursuant to 35 U.S.C. § 284 and further qualifies this action as an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

252. Nokia's continued infringement of the '105 Patent has and will continue to cause irreparable harm.

**PRAYER FOR RELIEF**

WHEREFORE, Apple requests that the Court:

- a. Dismiss the Complaint in its entirety, with prejudice;
- b. Enter judgment in favor of Apple and against Nokia;
- c. Adjudge and decree that Nokia is liable for breach of contract, promissory estoppel, and violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;
- d. On Apple's First and Second claims for relief, enter judgment against Nokia for the amount of damages Apple proves at trial;
- e. On Apple's Third claim for relief, pursuant to Section 4 of the Clayton Act, 15 U.S.C. § 15; enter judgment against Nokia for treble the amount of Apple's damages, enjoin Nokia from demanding from Apple non-F/RAND terms for Nokia's purportedly essential patents, and award Apple all reasonable attorneys' fees and costs;
- g. On Apple's Fourth claim for relief, enter judgment declaring that the terms offered by Nokia to Apple to license patents it claims are essential to implement the GSM,



GPRS, EDGE, UMTS, and WLAN standards, including the patents at issue in the Complaint, are not F/RAND terms;

h. On Apple's Fifth claim for relief, enter judgment declaring that Nokia is not entitled under any circumstances to seek injunctive relief preventing Apple from practicing the GSM, GPRS, EDGE, UMTS, and WLAN standards;

i. On Apple's Sixth claim for relief, enter judgment declaring that Nokia's purported essential patents, including the patents-in-suit, are unenforceable by virtue of Nokia's patent misuse;

j. Declare that Apple has not infringed, and is not infringing, each of the Nokia Asserted Patents;

l. Declare that one or more of the claims of each of the Nokia Asserted Patents are invalid, void and/or unenforceable against Apple;

m. Declare that Nokia has infringed one or more claims of each of U.S. Patent Nos. 5,634,074; 5,555,369; 6,239,795 B1; 5,315,703; 6,189,034 B1; 7,469,381 B2; 5,455,854; 7,383,453 B2; and 5,848,105 (collectively, the "Apple Asserted Patents");

n. Declare that Nokia's infringement of one or more claims of the Apple Asserted Patents is and/or has been willful;

l. Award a preliminary and permanent injunction prohibiting Nokia, its subsidiaries, divisions, agents, servants, employees, and those in privity with Nokia from infringing, contributing to the infringement of, and inducing infringement of the Apple Asserted Patents, and for further proper injunctive relief.

- m. Award to Apple damages for Nokia's infringement with interest, as well as costs (including expert fees), disbursements, and reasonable attorneys' fees incurred in this action, pursuant to 35 U.S.C. § 285;
- n Award Apple treble damages pursuant to 35 U.S.C. § 284; and
- o. 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 Complaint or by this Counterclaim.

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*Attorneys for Defendant and  
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Dated: February 19, 2010  
954101/35035

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

**CERTIFICATE OF SERVICE**

I, Richard L. Horwitz, hereby certify that on February 19, 2010, the attached document was electronically filed with the Clerk of the Court using CM/ECF which will send notification to the registered attorney(s) of record that the document has been filed and is available for viewing and downloading.

I hereby certify that on February 19, 2010, the attached document was electronically mailed to the following person(s)

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