

Exhibit 1

(Public Redacted Version)

EXHIBIT 14

SUBJECT TO PROTECTIVE ORDER
CONTAINS HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY INFORMATION

EXPERT REPORT OF PROFESSOR DAVID J. TEECE

Apple Inc. v. Samsung Electronics Co., Ltd. et al.

Case No. 11-CV-01846-LHK (N.D. Cal.)

March 22, 2012

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E. The Value of a Baseband Chip is Not an Appropriate Royalty Base

122. I am aware that, in reports submitted in the Netherlands and Australia, Apple’s damages expert, Mr. Richard Donaldson, proposed that, in his opinion, “the appropriate royalty base should relate to the value of the baseband chip, where the basic cellular communications technology is implemented.”⁵⁸
123. I disagree. First, Apple does not make or sell chipsets. It *buys* chipsets from firms such as Infineon and Qualcomm. I have never seen a license in which the parties agree that the licensee will pay royalties based on the *cost* to the licensee of a component that the licensee does not itself make or sell, but instead buys and incorporates into its licensed products. Certainly the terms of the Apple-Ericsson license provides no support whatsoever for Mr. Donaldson’s contention that the appropriate royalty base is the price Apple pays for the baseband chipset.
124. Second, the fact that the baseband chip set implements Samsung’s technology does not lead to the conclusion that the patented technology only provides value to that component and not Apple’s products as a whole. To the contrary, as explained above with respect to the EMVR, the ability of the Accused Products to send and receive voice and data over a cellular network creates consumer demand for the Accused Products as a whole. Furthermore, the price differential between the Accused Products and otherwise-equivalent products that do not support cellular communications exceeds the cost of a baseband chip.⁵⁹

X. Telecommunications Industry Royalty Rates

125. Before proceeding to address the Georgia-Pacific factors, I believe that it is worth presenting some data on royalty rates in the telecommunications and related industries. These rates will help place Samsung’s proposed royalty rates in perspective.
126. One source of relevant data involves rates charged or sought for other cellular-standards-essential patent portfolios in cellular communications.
127. The following Table, taken from a recent article in the journal *les Nouvelles*, discusses the royalty rates that are being sought by various holders of “declared essential” patents for the next-generation “LTE” cellular standard.

⁵⁸ Declaration of Richard A. Donaldson, dated September 4, 2011, Para. 33 (p. 12), filed in the Netherlands proceeding between Samsung and Apple.

⁵⁹ Exhibit 11.

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Summary of ETSI Declarations and Announced Royalty Rates for LTE ⁶⁰		
	Number of Declared Essential Patents	Published Handset Royalty Rate
Alcatel-Lucent	9	2.00%
Apple	-	
AT&T	1	
Ericsson	146	1.50%
ETRI	35	
France Telecom	3	
Freescale Semiconductor	1	
Gemplus	1	
Hewlett Packard	1	
Huawei	182	1.50%
Icera	1	
iCODING	1	
Infineon	2	
InterDigital Technology Corp	282	
InterDigital Patent Holdings	155	
IPR Licensing, Inc.	4	
LG Electronics	150	
Motorola	16	2.25%
NEC	19	
NextWave Wireless	-	
Nokia Corporation	142	1.50%
Nokia Siemens Networks	32	0.80%
Nortel Networks	46	1.00%
NTT DoCoMo	78	
Panasonic	39	
Qualcomm	350	3.25%
RIM	-	
Samsung	170	
Siemens	11	
Sony	12	
Sony-Ericsson	0	
Texas Instruments	26	
TDF	3	
T-Mobile Deutschland GmbH	12	
T-Mobile International AG	5	
Vodafone	-	
VoiceAge	6	
ZTE	-	1.00
Totals	1941	14.80%

⁶⁰ Eric Stasik, “Royalty Rates And Licensing Strategies For Essential Patents on LTE (4G) Telecommunication Standards,” *les Nouvelles*, September 2010, pp. 114-119 at p. 116.

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128. I am not familiar with any comparable source of data for the royalty rates for UMTS. However, given that the UMTS and LTE standards are both wireless telecommunications standards, royalty rates offered for licenses LTE declared-essential patents are applicable to an analysis of an appropriate royalty rate for patents declared essential to the UMTS standard. [REDACTED]

129. [REDACTED]

130. [REDACTED]

131. In addition to the information shown in the Table above, some additional information has recently come to light. Google, which recently acquired Motorola Mobility, has confirmed to the IEEE that Google would honor Motorola’s 2.25% royalty for its portfolio of UMTS-essential patents.⁶⁴

132. Other firms which have standards-essential patents have not announced the terms they are seeking for licenses.

133. To put these numbers into context, I searched for information about patent portfolios held by others relating to mobile communications generally and UMTS in particular. In a recent working paper entitled “IPR Standardization Policies and Strategic Patenting in UMTS,” Profs. Rudi Bekkers and Joel West presented information about the number of patents held as of early 2008 by the top 12 most active firms in the area, including Nokia, Ericsson, Motorola, Qualcomm and others. The relevant information from that article is shown in the following Table (numbered notes from the article).

⁶¹ APLNDC-WH0000586579-586.

⁶² APLNDC-WH0000586579-586 at -580-81.

⁶³ APLNDC-WH0000586579-586 at – 581.

⁶⁴ Letter from Allen Lo, Deputy General Counsel, Google Corporation, to Gordon Day, President, IEEE, dated 8 February 2012.

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UMTS-specific patenting for the 12 most active firms ⁶⁵			
	Unique essential patents notified at ETSI [1]	All mobile telecom related patents in EPO [2]	All mobile telecom related patents in USPTO [3]
Nokia	248	2,591	2,330
Ericsson	244	2,386	3,672
Qualcomm	228	1,047	1,079
InterDigital	168	181	375
Samsung	86	1,016	1,317
Motorola	54	1,144	4,497
Philips	45	1,493	1,535
Siemens	38	2,590	1,719
Asustek	23	25	17
Alcatel	20	2,027	1,780
Mitsubishi	18	439	814
Nortel	15	921	1,662

[1] Notification filed at ETSI according to an analysis based on ETSI SR 000 314 V1.14.1 (2005-04)

[2] Patent filed at the EPO on or after 1 January 1983 and published by 28 February 2005.

[3] Patent filed at the USPTO on or after 1 January 1983 and published by 24 January 2006.

134. Comparing the portfolios of the other firms to Samsung’s overall telecommunications-related patent portfolio, I believe that several things are worth noting.
135. First, Samsung has the fifth-highest number of patents declared essential to the UMTS standard.
136. Second, the overall size of Samsung’s European and U.S. patent portfolios of mobile telecommunications patents is quite large. Samsung’s portfolio ranks eighth (behind Nokia, Siemens Ericsson, Alcatel, Philips, Motorola, and Qualcomm) in Europe and eighth (behind Motorola, Ericsson, Nokia, Alcatel, Siemens, Nortel, and Philips) in the U.S., but above a number of other major players in the industry (such as Qualcomm in the U.S. and Nortel in Europe).

XI. Other Royalty Rate Information

137. In my previous research and testimony experience, I have had the opportunity to review many licenses, and to observe royalty rates charged in the various high-tech industries including electronics and consumer electronics. In this section, I summarize the (non-confidential⁶⁶) information that I have been able to identify about

⁶⁵ Rudi Bekkers and Joel West, “IPR Standardization Policies and Strategic Patenting in UMTS,” Paper to be presented at the 25th Celebration Conference 2008 on Entrepreneurship and Innovation – Organizations, Institutions, Systems and Regions, Copenhagen, CBS, Denmark, June 17-20, 2008.

⁶⁶ In the course of my research, consulting, and testifying work, I have become familiar with a number of licenses in the electronics industry and with the royalty rates charged in various patent licenses. However,