Apple v. Samsung
Confidential – Attorneys' Eyes Only

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8   UNITED STATES DISTRICT COURT

9   NORTHERN DISTRICT OF CALIFORNIA

10   SAN JOSE DIVISION

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12 APPLE INC., a California corporation,	Case No. 11-cv-01846-LHK
13 Plaintiff,	**EXPERT REPORT OF RAVIN BALAKRISHNAN, PH.D. REGARDING INFRINGEMENT OF U.S. PATENT NO. 7,469,381**
14 v.	
15 SAMSUNG ELECTRONICS CO., LTD., A Korean business entity; SAMSUNG	
16 ELECTRONICS AMERICA, INC., a New York corporation; SAMSUNG	
17 TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company,	
18	
19 Defendants.	

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21   ****CONFIDENTIAL – CONTAINS MATERIAL DESIGNATED AS HIGHLY
           CONFIDENTIAL – ATTORNEYS' EYES ONLY PURSUANT
22   TO A PROTECTIVE ORDER****

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EXPERT REPORT OF RAVIN BALAKRISHNAN, PH.D. REGARDING INFRINGEMENT OF THE '381 PATENT
Case No. 11-cv-01846-LHK

attempts to scroll the electronic document beyond its edge, the iPhone 4 displays an area beyond

the edge of the electronic document along with a third smaller portion of the electronic document.

When the user lifts his finger from the touch screen, the electronic document moves back into

place to fill the screen, and a fourth portion of the electronic document different from the first

portion is displayed.

49.   Based on my examination of the aforementioned Apple products, I conclude that

they practice the asserted apparatus and system claims of the '381 patent, and their ordinary and

intended use practices the asserted method claims of the '381 patent. I have examined portions of

the source code for Apple's iOS version 4.1 operating system and confirmed the behavior I saw

on the iPhone 4 in the following source code modules: the UIScrollView class or subclass (for

example, UIWebBrowserView and UIWebDocumentView); the touch panel (e.g., Grape) driver;

UIKit classes; IOKit classes; SBHIDinterface.m; the SpringBoard application; and

UIPanGestureRecognizer class or subclasses.

50.   Moreover, my examination was further confirmed by the testimony of the inventor

of the '381 patent, Bas Ording, who testified generally that certain applications on an iPhone 4

behaved in a manner consistent with his ideas in the '381 patent. (Ording 8/9/11 Dep. Tr. at

198:6 – 201:3.)

D.   Samsung's Emulation Of Apple And The Features Of The '381 Patent

51.   I have also reviewed a number of documents produced by Samsung in this

litigation, including analyses of features in Apple products and email messages. Based on my

review of these documents, it appears that Samsung studied a number of Apple products that

embody the asserted claims of the '381 patent, recognized the benefits of the '381 patent, and

implemented the features of the '381 patent in Samsung products.

52.   As just one example, in the document titled "Behold3 Usability Evaluation

Results" (SAMNDCA00508318 – 508411), Samsung evaluated its Behold3 phone against

Apple's iPhone. (SAMNDCA00508331; *see* translations of excerpts in Apple's Appendix of

Certified Translations in Support of Opening Expert Reports ("Translations App'x").) This

evaluation concluded that Samsung's "Behold3 [was] shown inferior to Apple's iPhone in both

1   the task success rate (68.5%) and satisfaction score (86)." (SAMNDCA00508333.) On a page

2   titled "Aesthetics_Browsing," the document notes that the iPhone has "a 'bouncing' visual

3   effect," which "generates fun for the user," while the Behold3 has "no visual effect" when "a web

4   page is dragged to its endpoint." (SAMNDCA00508383.) On that page, there is a side by side

5   comparison between the Behold3 and the iPhone, where the rubber-banding feature of the '381

6   patent is being demonstrated on a web page displayed on the iPhone. (*Id*.) Specifically, the

7   displayed web page is being pulled to the upper right hand corner, revealing an area beyond the

8   edge of the web page to the left and below. (*Id*.) The caption notes that "If a web page is

9   dragged to the edge, and the hand is released, a 'bouncing' visual effect is provided." At the

10   bottom of the page, following the column "Direction of Improvement," is a direction to "Provide

11   a fun visual effect when dragging a web page." (*Id*.) Based on the existence of this feature in the

12   Samsung devices I examined, it appears that this instruction was carried out.

13   53.   As another example, in the document titled "P5 Usability Evaluation Results"

14   (SAMNDCA00176053 – 176171; *see* translation of excerpts in Translations App'x), Samsung

15   evaluated a prototype of its "GT-P7300" (the Galaxy Tab 8.9) against Apple's iPad 2.

16   (SAMNDCA00176053.) The document notes that the "GUI and Visual Effect are lacking in

17   comparison to iPad 2." (SAMNDCA00176055.) Subsequently, the evaluation notes that when a

18   Browser application window is scrolled to the top or bottom, the P5 "lack[s] bounce effect," and

19   that the Samsung's product "Lacks Fun, Wow Effect." (SAMNDCA00176071.) This issue

20   appears to have been designated "Critical," with the direction that the "Bounce effect is scheduled

21   to be reviewed." (*Id*.) Later in the evaluation, there is a side by side comparison between the P5

22   and the iPad 2, where the rubber-banding feature of the '381 patent is being demonstrated on a

23   web page displayed on the iPad 2. (SAMNDCA00176125.) Specifically, the displayed web page

24   is being pulled to the lower right hand corner, revealing an area beyond the edge of the web page

25   to the left and above. (*Id*.) To the right, it states that "In case of iPad 2, there is a fun element

26   from a natural Bounce effect that follows hand gestures." (*Id*.) Based on this statement, it

27   appears that Samsung understood at least part of the purpose and value of the rubber banding

28   feature of the '381 patent, which were to provide a natural, intuitive experience for the user that
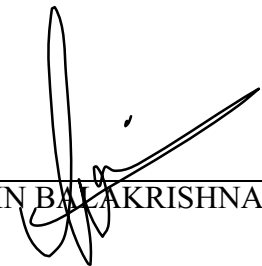
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AA.   Supplementation

267.   I reserve the right to supplement this report with new information and/or documents that may be discovered or produced in this case, or to address any new claim constructions offered by Samsung or ordered by the Court.

268.   In connection with my anticipated testimony in this action, I may use as exhibits various documents produced in this case that refer or relate to the matters discussed in this report. In addition, I may have demonstrative exhibits prepared to assist in the presentation of my testimony and opinions as set forth or cited in my report.

Dated: March 22, 2012

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RAVIN BALAKRISHNAN