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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

APPLE INC., a California corporation, Plaintiff, vs. SAMSUNG ELECTRONICS CO., LTD., a Korean business entity; SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company, Defendants.	CASE NO. 11-cv-01846-LHK **SUPPLEMENTAL DECLARATION OF STEPHEN GRAY IN SUPPORT OF SAMSUNG'S OPPOSITION TO APPLE'S MOTION FOR A PERMANENT INJUNCTION AND DAMAGES ENHANCEMENT** **PUBLIC REDACTED VERSION**

DECLARATION OF STEPHEN GRAY

I, Stephen Gray, declare:

1.   I have personal knowledge of the facts set forth herein, and am competent to testify to the same.

2.   I submit this supplemental declaration in support of Samsung's Opposition to Apple's Motion for a Permanent Injunction relating to U.S. Patent 7,844,915 (the '915 patent). Specifically, I submit this supplemental declaration to respond to new infringement opinions submitted by Dr. Karan Singh in his December 3, 2012 deposition and his declaration supporting Apple's reply in support of its motion for a permanent injunction dated November 9, 2012. If asked at hearings or trial, I am prepared to testify regarding the matters I discuss in this declaration. I incorporate by reference all opinions stated in my declaration dated October 18, 2012.

3.   I reserve the right to supplement or amend this declaration based on any new information that is relevant to my opinions.

I.   BACKGROUND

4.   At trial, Dr. Singh testified that a "quintessential" and "very important" test occurs in the line of source code "ev.getPointerCount() > 1" found in Android's WebView code. (Tr. at 1824:10-19.)   Dr. Singh testified that this code receives a motion event and distinguishes between a single input point and two or more input points. (Tr. at 1824:20-1825:3.) Dr. Singh further testified that if a single input point is detected, the "ev.getPointerCount() > 1" test invokes a scroll operation, and if two or more input points are detected, the "ev.getPointerCount() > 1" test invokes a scale operation. (Tr. at 1825:4-11.)

5.   As outlined in my declaration dated October 18, 2012, I reviewed new source code for the Galaxy S II (T-Mobile) product and concluded that the new code does not infringe the '915 patent.   Among the reasons why it does not infringe is that it no longer contains the "quintessential" test identified by Dr. Singh as infringing.   Indeed, the "quintessential" ev.getPointerCount() > 1 test that Dr. Singh identified as infringing was removed from that code

1   and replaced by a fundamentally different technique for processing scrolling and scaling

2   operations.

3   **II.   DR. SINGH'S NEW INFRINGEMENT THEORY**

4   6.   In Dr. Singh's November 9, 2012 declaration, he advances a new theory of

5   infringement for Samsung's new algorithm for scrolling and scaling. Dr. Singh now claims that

6   ██ infringes the '915 patent. I disagree with Dr.

7   Singh.

8   7.   As an initial matter, Dr. Singh concedes that his new theory of infringement is no

9   longer based on the "ev.getPointerCount" test, which he referred to at trial as the "quintessential"

10   test for infringement of the '915 patent:

11   Q. You know what I'm talking about, Dr. Singh.

12   A. The particular lines, ev.getPointerCount, even ev.getPointerCount greater
13   than 1, show up in a number of different places in both the old code as well
             as in the new Samsung modified source code. So I think, I think if your
14   question is in its current form, I would say yes, there are multiple places
             where I see ev.getPointerCount greater than 1.
15

16   Q. And do you rely on any of those for your new opinion of infringement?

17   A. Those particular lines? No.

18   (Singh Dep. at 399:23-400:12 (objection omitted).)[1]

19   8.   Dr. Singh's new infringement theory is focused on ████████████████ Dr.

20   Singh explained during his deposition that ██

21   ██████████████████████████ (Singh Dep. at 403:20-21.) Dr. Singh claims that ████

22   ██████████████████ infringes the '915 patent because, ████████████████████████████

23   ██████████████████████████████ (*Id.* at 424:16-17.) Dr. Singh also claims

24   that ███

25   ██

26   _____

27   [1]   Excerpts from the December 3, 2012 Singh Deposition are attached as Exhibit A to this
         declaration.

28

                                                    -2-   Case No. 11-cv-01846-LHK
                                                    SUPPLEMENTAL DECLARATION OF STEPHEN GRAY

1   ███████████████████████   (*Id.* at 401:16-18 and 419:8-9.)   ██████████████

2   ██

3   ██

4   **III.   SAMSUNG'S** ████████ **CODE DOES NOT INFRINGE THE '915 PATENT**

5   9.   It is my opinion that Samsung's new code does not infringe the '915 patent literally

6   or under the doctrine of equivalents.

7   10.   First, the "quintessential test" identified by Dr. Singh ("ev.getPointerCount(_) > 1")

8   was removed from the code. There are no lines of code similar to this one anywhere in the new

9   code that relate to scrolling or scaling.

10   11.   Every time there is a touch event (someone or something touches the screen), the

11 code runs the modified "*WebviewScaleGestureDetector*" code to determine whether or not it

12 should scale. However, nothing in *WebviewScaleGestureDetector* looks to the number of inputs

13 on the touch screen to determine whether to perform a scale operation.   Instead,   ██████████

14 ██

15 ████████████████████████████████

16   12.   ██

17 ██

18 ██

19 ██

20 ██

21 ██████████████

22   13.   The new code does not consider the number of input points to determine whether to

23 perform a scale operation. Instead, it does two things, entirely separately from each other.   ████

24 ████████████████████████████████   ███████████████████████████████████████

25 ██

26 ██

27

28

14.   The code for scrolling is called "*handleTouchEventCommon*", and is independent from the *WebviewScaleGestureDetector* code. *handleTouchEventCommon* is executed every time there is a touch event, and is not dependent on the number of touches involved in the touch event. As Dr. Singh admits, the *handleTouchEventCommon* code executes, possibly invoking a scroll operation, regardless of whether a scale gesture is detected in *WebviewScaleGestureDetector*. (Singh Dep. at 430:2-13.)

15.   Below I explain in detail several reasons why Samsung's code does not infringe the '915 patent. In the future, I may provide additional reasons why Samsung's new code does not infringe as I further analyze Dr. Singh's deposition testimony from December 3, 2012 and his new infringement theory.

A.   The ▮▮▮▮ Code Does Not Distinguish Between "One Input Point . . . And Two Or More Input Points"

16.   The new code does not infringe because it does not "distinguish between one input point . . . and two or more input points" to determine whether to invoke a scroll or scale operation as the '915 Patent requires. Samsung's new code does not look to the number of input points to determine whether to scroll or scale. Samsung's new code ▮▮▮▮▮▮▮▮

▮▮▮▮▮▮▮▮

▮▮▮▮ There is no decision whether to scroll or scale based on the number of input points.

17. I understand that for a product to literally infringe, the device must practice each limitation of the claim exactly. It is my opinion that claim element 8[c] – the determining limitation – is not literally met, because the determination is based on the ▮▮▮ and not the number of input points. Dr. Singh confirmed this during his deposition when he was not able to identify any source code that made a determination based on input points. (Singh Dep. at 421:13-422:13.) Although Dr. Singh claims that the new code still makes the same decision as the old code, that is not correct. In fact, if there are two input points close together, ▮▮▮▮▮▮▮

1   ██████████████████████, which would not result in a scaling operation despite two input

2 points on the touchscreen. Dr. Singh conceded that two input points very close together could

3 result in ████████████████. (Singh Dep. at 408:19-409:8.)

          B.   **The ████ Test Does Not "Invoke A Scroll . . . Operation" Or "Issu[e] At Least One Scroll . . . Call Based On Invoking The Scroll . . . Operation"**

6   18.   The '915 patent requires "determining whether the event object invokes a scroll"

7 operation by "distinguishing between a single input point applied to the touch-sensitive display

8 that is interpreted as the scroll operation." The ████ code does not do this. The '915 patent also

9 requires "issuing at least one scroll . . . call based on invoking the scroll . . . operation." The ████

10 code does not do this either.

11   19.   Dr. Singh claims that when ████████████, the scroll code is invoked. This is

12 misleading. ██

13 ██. (Singh

14 Dep. at 427:22-430:9.) After that, the next code in line executes, which happens to be the scroll

15 code (*handleTouchEventCommon*). (*Id.*) As Dr. Singh admitted during his deposition, the

16 scrolling code executes regardless of the number of input points applied to the touch sensitive

17 display. (*Id.* at 430:10-13.) The scroll code is completely independent of any other code, and will

18 execute upon any touch event. It is not invoked or caused by any "determining" step.

19   20.   If Dr. Singh's opinion is based simply on the fact that the

20 *handleTouchEventCommon* code happens to be executed after the *WebviewScaleGestureDectector*

21 code, I disagree. The order of the steps is irrelevant because the two sets of code are unrelated. As

22 I explained during my deposition, before learning of Dr. Singh's new infringement theory, "The

23 ████████████ is not related to the execution or to the invocation of the method handle touch event

24 common." (Gray Dep. 78:11-20.)

25   21.   For these reasons, the new code does not infringe because the ████ code does not

26 determine whether the event object invokes a scroll operation nor does it invoke or cause a scroll

27 operation to occur.

28

C.   Two Finger Input Can Result In A Pure Scroll Operation

22.   When two fingers applied to the touchscreen are close together, ███████████ ███████ and a scale operation will not occur. Therefore, claim 8 of the '915 patent is not infringed because it requires two input points "applied to the touch-sensitive display" to invoke a scale operation.

23.   Dr. Singh confirmed during his deposition that two fingers applied to the touchscreen can result in a scroll instead of a scale. During his deposition, he testified as follows:

> Q. So in other words, if two fingers are very close together, touching the touchscreen, then the device may interpret that as a single input point, which ████████████████████████ ; is that correct?
>
> A. Same answer, really. In this hypothetical scenario, were somebody able to have their two fingers down and were the device to interpret it as a single input touch, if it were indeed interpreted as a single input touch, ████████████████████████████████ ████████████████████

(Singh Dep. at 408:19-409:8 (objections omitted).)

24.   Based on this admission, it is clear to me that Dr. Singh's new infringement theory is based on an incorrect interpretation of the claims. Although he admitted that ███████████ ████████████████████████████████████, he testified that ████████████ ████████████████████████████" However, this interpretation disregards the claim language which states: "determining whether the event object invokes a scroll or gesture operation by distinguishing between a single input point *applied to the touch-sensitive display* that is interpreted as the scroll operation and two or more input points *applied to the touch-sensitive display* that are interpreted as the gesture operation."   Claim 8 therefore requires making a determination based on the number of touches actually "applied to the touch-sensitive display", as opposed to how the touches may be interpreted by electronics in the device. Indeed, the claims refer to "input points applied to the touch-sensitive display," not input points "interpreted by electronics or software within the device." Therefore, Dr. Singh's interpretation is incorrect and contrary to the plain claim language.

D.   The New Code Performs Pure Two Finger Scrolling, Which Dr. Singh Admits Does Not Infringe

25.   During his deposition, Dr. Singh testified that a device that performs pure two finger scrolling does not infringe the '915 patent:

> Q. Dr. Singh, in your opinion, is the determining limitation of the '915 patent satisfied by a device that performs pure two finger scrolling?
>
> A. So the scenario that you're presenting is a device where you have two input, distinct input touches and you're performing pure scrolling, a pure translation? I would say barring things such as filtering for noise and inadvertency in touches and so on, if that was specifically what was being performed all the time rather than not just coincidentally where a scale value just happened to be 1 at a particular incident in time, that would not meet the claim in this hypothetical scenario of yours.

(Singh Dep. at 457:7-458:12.)

26.   Samsung's new algorithm performs pure multi-finger scrolling operations – that is, the use of two or more fingers to scroll without scaling at the same time. ███████████

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██

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███   Therefore, the device is not making a determination between one touch and two or more touches to scroll or scale respectively. The code performs pure multi-finger scrolling in precisely the way Dr. Singh says does not infringe. The code is not filtering for noise or inadvertent touches. The code is instead verifying the user wants to scale ████████████████████

████████████████ . Despite Dr. Singh's admission that confirms this code does not infringe, Dr. Singh did not address this portion of code in his declaration.

E.   Samsung's New Algorithm Does Not Infringe Under The Doctrine of Equivalents

27.   It is also my opinion that Samsung's new algorithm does not infringe under the doctrine of equivalents. I have reviewed the prosecution history in this case, and it is my opinion that the Apple disclaimed all equivalents for the "determining" element in claim 8.

SUPPLEMENTAL DECLARATION OF STEPHEN GRAY

28.   The "determining" element of claim 8 originally read as follows: "determining whether the event object invokes a scroll or gesture operation."

29.   During prosecution, the Examiner rejected the '915 claims over a combination of prior art references, Lii (US 7,576,732) and Hollemans (2007/025821).

30.   On June 9, 2010, the Apple's representative had an interview with the Examiner. The only record of this Interview stated that Apple's representative argued that the "prior art of record . . . fail to teach or suggest creating an event object that determines whether a user input applied to a touchscreen invokes a scroll operation or a gesture operation by simply distinguishing between the scroll operation and the gesture operation without having to select an object or icon to define the operation." (Joint Trial Ex. No. 1048.462.)

31.   I understand that Dr. Singh contends that this argument is the reason why the claim limitation was amended.   (Singh Decl. ¶ 36.)   I disagree.   The Examiner rejected Apple's arguments made at the June 9, 2010 interview, which is evidenced by the fact that a check box on the interview summary indicates that no agreement was reached.   In addition, there is no indication in the prosecution history that any amendments to the claims had been proposed or discussed during the June 9, 2010 interview.

32.   The following month, on July 20, 2010, the Examiner issued a notice of allowance. In this notice of allowance, the Examiner also made an Examiner's amendment that added the following language to the determining step: "determining whether the event object invokes a scroll or gesture operation <u>by distinguishing between a single input point applied to the touch-sensitive display that is interpreted as the scroll operation and two or more input points applied to the touch-sensitive display that are interpreted as the gesture operation</u>."   (Joint Trial Ex. No. 1048.521.) This is the first time this amendment appears in the record.

33.   The Examiner also indicated that authorization for this amendment was given in a telephone interview with Mr. Jeremy Schweigert (Apple's representative) on July 7, 2010. (*Id.*)

34.   The July 7, 2010 interview was different from the June 9, 2010 interview cited by Dr. Singh in paragraph 36 of his report.   There is no record of what was discussed at the July 7,

1   2010 interview. There is also no record regarding why the Examiner rejected the arguments made

2   by the Applicant in the July 7, 2010 interview. Therefore, the record contains no evidence as to

3   why the amendment was made.

4   35.   I understand that when a narrowing amendment is made for a substantial reason

5   related to patentability, there is a presumption that the patentee surrendered all equivalents.

6   36.   I also understand that the patentee bears the burden to explain the reason for the

7   amendment, and when the Court cannot determine the reason for an amendment, the Court should

8   presume the patentee surrendered all subject matter between the broader and narrower language.

9   37.   It is my opinion based on the prosecution history that the narrowing amendment

10   was made to overcome prior art. This is further evidenced by the fact that in the Notice of

11   Allowance, the Examiner indicated that the claims were patentable because the prior art fails to

12   teach the combination of "creating an event object in response to a user input; determining

13   whether the event object invokes a scroll operation or a gesture operation; *distinguishing between*

14   *a single input point and a two or more input points applied to a touch-sensitive display, wherein*

15   *a single input point is interpreted as a scroll operation and two or more input points are*

16   *interpreted as a gesture operation.*" (emphasis added.) It is also my opinion that the reason for

17   the amendment cannot be determined and therefore Apple cannot apply the doctrine of

18   equivalents.

19   38.   I also understand Apple can rebut the presumption that it surrendered the

20   equivalent in question by showing that the rationale underlying the amendment bore no more than

21   a tangential relation to the equivalent in question. As explained above, Apple cannot show the

22   rationale behind the amendment at all, let alone show that it bore no more than a tangential

23   relation to the equivalent in question. All that is clear from the record is that the claims were

24   rejected based on prior art, the Examiner was authorized to add the amendment for some unknown

25   reason, and the claims were patentable over the prior art in part because of the amendment.

26   39.   Even if Apple could apply the doctrine of equivalents, it is my opinion that there

27   are substantial differences between the claim limitation in question and Samsung's new code.

28

1 Samsung's new code does not perform the same function in the same way to produce the same

2 result as the claims. First, it does not perform the same function. For example, the claimed

3 function is to distinguish between the number of input points to either scroll or scale. The

4 Samsung code does not function this way. ██

██ n

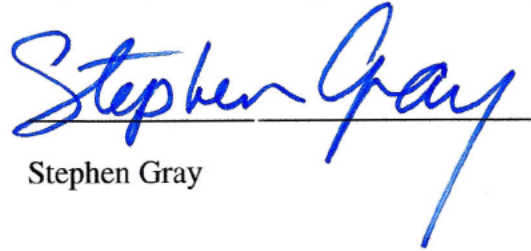██

7   40.   Next, Samsung's new algorithm does not perform the same way. For example,

8 claim 8 requires a determination of whether to scroll or scale based on the number of input points.

9 But, as explained above, Samsung's code does not do this. ██████████████ s ████████ h

██

11   41.   Finally, the results are different. For example, the claim requires a scroll for one

12 touch, and a scale for two or more touches. ██

██, two touches close together can result in a

14 scroll operation.

15   42.   I declare under penalty of perjury under the laws of the United States that the

16 foregoing is true and correct. Executed on December 5, 2012, in _SOLANA BEACH_

17

18 _Stephen Gray_ (signature)

19 Stephen Gray

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