EXHIBIT S

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

REBUTTAL EXPERT REPORT OF STEPHEN GRAY REGARDING NON-INFRINGEMENT OF ASSERTED CLAIMS OF U.S. PATENT NOS. 7,844,915 AND 7,864,163

TABLE OF CONTENTS

2					Page
3	INTR	ODUCT	TION		1
4	I.	BASE	S FOR OPI	NIONS	3
5		A.	Preparation	for this Report	3
6		В.	Materials C	Considered	3
7	II.	LEGA	L UNDERS	TANDINGS	3
8		A.		nt	
9		В.		ringement	
10		C.		Equivalents	
11	III.			THE ACCUSED PRODUCTS	
12					
13	IV.			ON-INFRINGEMENT OF THE '915 PATENT	
14		A.		oblems with the Singh Report Infringement Analysis of the '915 Patent	6
15				Singh Report Fails to Provide Support for Many of the Opinions ressed.	6
16 17			(a)	The number of touch inputs are not exclusively used to determine whether to scroll or scale	6
18			(b)	The Event Object does not "invoke"	
19			. ,	My Understanding That The Singh Report Opinions Regarding	
20			Indi	rect Infringement Were Not Properly Disclosed In Apple's	0
21				ingement Contentions.	,9
22				nions in the Singh Report Fail To Adequately Address The Vast ority Of Samsung "Accused Products"	10
23			4. App	le's Alleged Practice Of The '915 Patent	11
24	:		5. App	le's Priority Date For The '915 Patent	12
25		В.		laim Non-Infringement Analysis and Basis for My Opinion	
26				Patent, Claim 1 Preamble	
27				Patent, Claim 1[a]	
28				- ···········[w]····································	14
- 11				•	

1	3.	'915 Patent, Claim 1[b]	13
2	4.	'915 Patent, Claim 1[c]	13
3		(a) The Event Object does not "invoke"	14
4		(b) The number of touch inputs are not used to determine whether to	1.5
5		scroll or scale	
6		(c) Additional Comments	16
7	5.	'915 Patent, Claim 1[d]	16
8	6.	'915 Patent, Claim 1[e]	17
9	7.	'915 Patent, Claim 1[f]	17
10	8.	'915 Patent, Claim 2	18
11	9.	'915 Patent, Claim 3	18
12	10.	'915 Patent, Claim 4	20
13	11.	'915 Patent, Claim 5	20
14	12.	'915 Patent, Claim 6	20
15	13.	'915 Patent, Claim 7	21
16	14.	'915 Patent, Claim 8	21
17	15.	'915 Patent, Claim 9	22
18	16.	'915 Patent, Claim 10	22
19	17.	'915 Patent, Claim 11	
20	18.	'915 Patent, Claim 12	
21	19.	'915 Patent, Claim 13	
22	20.	'915 Patent, Claim 14	
23			
24	21.	'915 Patent, Claim 15	
25	22.	'915 Patent, Claim 16	26
26	23.	'915 Patent, Claim 17	27
27	24.	'915 Patent, Claim 18	27
98 II			

1] 2	5. '915 Patent, Claim 19	28
2	2	26. '915 Patent, Claim 20	28
3	2	7. '915 Patent, Claim 21	29
4	11	Samsung Devices Do Not Indirectly Infringe The Method Claims Of The '915	
5	P	Patent	29
6	1	. The Method Claims Of The '915 Patent Are Not Part Of The "Ordinary And Intended Use" Of The Samsung Devices	30
7	2	. The Singh Report Cites No Evidence Of Direct Infringement By Users	
8		And No Evidence That Samsung Intended Users To Engage In The Acts Constituting Infringement With Intent That They Infringe	.31
9	D. C	Other Non-infringing Alternatives	32
10			
11	1		
12	2	. Tilt zoom	.34
13	3	. Over-scroll glow	.35
14	4	. Dimensional distortion	.35
15	5	. List stretching	.36
16		esponse to the Hauser Report Regarding Functionality Described in the '915 atent	.36
17	V. OPINIO	NS ON NON-INFRINGEMENT OF THE '163 PATENT	.38
18 19	A. G	deneral Problems with the Singh Report Infringement Analysis of the '163 Patent	.38
20	1.	,	
21		Indirect Infringement Were Not Properly Disclosed In Apple's Infringement Contentions.	.38
22	2.	·	
23		Vast Majority Of Samsung "Accused Products."	.39
24	3.	Apple's Alleged Practice Of The '163 Patent	40
25	4.	Apple's Priority Date For The '163 Patent	41
26	B. C	laim-by-Claim Non-Infringement Analysis and Basis for My Opinion	41
27	1.	'163 Patent, Claim 2 Preamble	41
28	2.	'163 Patent, Claim 2[a]	41
		-iii-	

1	3.	'163 Patent, Claim 2[b]	42
2	4.	'163 Patent, Claim 2[d]	43
3	5.	'163 Patent, Claim 2[e]	44
4	6.	'163 Patent Claim 2[f]	45
5	7.	'163 Patent Claim 2[g]	46
6	8.	'163 Patent, Claim 4	47
7	9.	'163 Patent, Claim 5	47
8	10.	'163 Patent, Claim 6	48
9	11.	'163 Patent, Claim 7	49
10	12.	'163 Patent, Claim 8	50
11	13.	'163 Patent, Claim 9	50
12	14.	'163 Patent, Claim 10	50
13 14	15.	'163 Patent, Claim 11	51
15	16.	'163 Patent, Claim 12	51
16	17.	'163 Patent, Claim 13	51
17	18.	'163 Patent, Claim 17	52
18	19.	'163 Patent, Claim 18	52
19	20.	'163 Patent, Claim 27	54
20	21.	'163 Patent, Claim 28	54
21	22.	'163 Patent, Claim 29	54
22	23.	'163 Patent, Claim 30	55
23	24.	'163 Patent, Claim 31	55
24	25.	'163 Patent, Claim 32	55
25	26.	'163 Patent, Claim 33	56
26	27.	'163 Patent, Claim 34	56
27	28.	'163 Patent, Claim 35	57
28			

1		29. '163 Patent, Claim 36	7
2		30. '163 Patent, Claim 375	7
3		31. '163 Patent, Claim 385	8
4		32. '163 Patent, Claim 395	8
5		33. '163 Patent, Claim 405	8
6		34. '163 Patent, Claim 4159	9
7		35. '163 Patent, Claim 4259	9
8		36. '163 Patent, Claim 4759	9
9		37. '163 Patent, Claim 4860	0
10		38. '163 Patent, Claim 49	1
11		39. '163 Patent, Claim 50	2
12		40. '163 Patent, Claim 51	3
13 14		41. '163 Patent, Claim 5262	4
15	C.	Samsung Devices Do Not Indirectly Infringe The Method Claims Of The '163 Patent	6
16 17		1. The Method Claims Of The '163 Patent Are Not Part Of The "Ordinary And Intended Use" Of The Samsung Devices	5
18 19		2. Samsung Does Not Encourage Or Instruct Its Users To Infringe The Method Claims Of The '163 Patent	3
20		3. The Singh Report Cites No Evidence Of Direct Infringement By Users	
21		And No Evidence That Samsung Intended Users To Engage In The Acts Constituting Infringement With Intent That They Infringe69)
22	D.	Samsung's Alleged "Emulation" Of The Features Of The '163 Patent)
23		1. Many Of The Documents Cited By The Singh Report Show That Samsung	
24		Conducted Performance Comparisons, Not That It Emulated Apple's Design Choices)
25		2. The Documents Cited By The Singh Report Do Not Show That Samsung	
26		Considered The Functionality Associated With The Second Gesture Of The '163 Patent Important In Any Way71	1
27	E.	Other Non-infringing Alternatives	i
28	2 .	Other Ivon-mininging rucematives	'

1	CONCLUSION74
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20 21	
22	
23	
24	
25	
26	
27	
28	
	-vi-

INTRODUCTION

- 1. I have been retained by Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively "Samsung") as an independent expert in this action. I expect to testify concerning the subjects outlined in this report.
- 2. As part of this engagement I have been asked to provide analysis and expert opinions regarding whether certain products identified by Apple infringe the Asserted Claims of U.S. Patent Nos. 7,844,915 (hereafter, the '915 Patent) and 7,864,163 (hereafter the '163 Patent). I have also been asked to respond to the Expert Report of Karan Singh ("Singh Report"), served by Apple in this case regarding the alleged infringement of the '915 and '163 Patents. I understand that the claims asserted by Apple include claims 1-21 of the '915 Patent and claims 2, 4-13, 17, 18, 27-42 and 47-52 of the '163 Patent.
- 3. I have previously prepared an Expert Report Concerning Invalidity of U.S. Patent Nos. 7,844,915 and 7,864,163 dated March 22, 2012 ("Invalidity Report"), which is incorporated by reference into this Report as if set forth fully herein. My experience and qualifications are included in the Invalidity Report.
- 4. I am being compensated for my work on this case at my standard consulting rate of \$370 per hour. I am also being reimbursed for expenses that I incur. My compensation is not contingent upon the results of my study or the substance of my testimony.
- 5. I expect to be called to provide expert testimony regarding opinions formed resulting from my analysis of the issues considered in this report. If asked to do so, I may also provide testimony describing application programming interfaces, scrolling and scroll indicators, gesturing, rubber banding, and multi-touch technology using one or more input points as well as drag user inputs. I may also discuss the use of software, drivers and/or application programming interfaces capable of providing scrolling, scaling, rotating, and other manipulation of content on touch sensitive hardware devices. Additionally, I may discuss my own work, teachings, and knowledge of the state of the art in the relevant time period. I may rely on handbooks, textbooks, technical literature, and the like to demonstrate the state of the art in the relevant period and the evolution of relevant technologies.

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

- 6. This Report is a description of the testimony I expect to offer in the case named above. However, I respectfully reserve my right to alter or supplement my analysis in response to any criticisms or alternative opinions offered by Apple.
- 7. I may prepare, for presentation at trial, demonstrative exhibits that discuss the patent, the patent figures, and/or the patent file histories. I may also prepare demonstrative exhibits that discuss technology related to the patent and/or the prior art. I may use these demonstratives to further explain the disclosures in the patent or its prosecution history, as well as issues relating to the patent specification or the technologies at issue.
- 8. I may, for example, prepare static or animated exhibits that summarize the Accused Products¹ and/or the operation of the Accused Products or, for example, a video depicting actual use of the Accused Products. I may also rely on screen shots of the Accused Products or other documents in Appendix 1 to generate demonstratives that walk through the operation of the Accused Products.
- 9. In reaching the conclusions described herein, I have considered the documents and materials set forth in my Invalidity Report and all documents that are identified in this report including the Singh Report. My opinions are also based upon my education, training, research, knowledge, and personal and professional experience.
- 10. It is my understanding that expert discovery is still ongoing. I reserve the right to modify or supplement my opinions, as well as the basis for my opinions, in light of any documents, testimony, or other evidence that may emerge during the course of this matter, including depositions that have yet to be taken.
- 11. It is also my understanding that Apple may submit an expert report responding to this report. I reserve the right to rebut any positions taken in that report.
- 12. Throughout this report, I refer to specific pages of patents and other technical documents. The citations are intended to be exemplary and are not intended to convey that the citations are the only source of evidence to support the propositions for which they are cited.

¹ See Section III listing the Accused Products.

I. BASES FOR OPINIONS

A. Preparation for this Report

- 13. In forming my opinions, I have considered, in addition to my own knowledge and experience, (a) the documents and things listed in Exhibit 1 as well as (b) any other references referred to or cited in this Report.
- 14. All of the opinions stated in this report are based on my own personal knowledge and professional judgment; if called as a witness during the trial in this matter I am prepared to testify competently about them.
- 15. I reserve the right to update, supplement, or amend this report in view of additional information obtained through discovery or other information that may become available between now and trial that may affect the opinions set forth in this report. I provide the details of my analysis, and the conclusions that form the basis for any testimony that I may give, below. Any testimony I give may include appropriate visual aids, some or all of the data or other documents and information cited herein or identified in Appendix 1, and additional data or other information identified in discovery, to support or summarize my opinions.

B. Materials Considered

16. This report is based on my review of U.S. Patent Nos. 7,844,915 and 7,864,163 and their respective file histories, and parts of the record and documents produced in this case to date, including product manuals and source code relating to the Accused Products.

II. LEGAL UNDERSTANDINGS

17. In this section I describe my understanding of certain legal standards. I have been informed of these legal standards by Samsung's attorneys. I am not an attorney and I am relying only on instructions from Samsung's attorneys for these legal standards.

A. Infringement

18. I understand that Apple has the burden to prove infringement. I have been informed that analysis of patent infringement requires two steps. The first step is to properly construe the terms of the patent claims, which is a step taken by the Court. The second step is to apply the construed claim terms

1 2

B.

4 5

6

3

7 8

9 10

11

12 13

15

16 17

> 18 19

20 21

22 23

24 25

26 27

to the accused product. A patent claim is "literally" infringed only if each and every claim element is found in the accused product.

SUBJECT TO PROTECTIVE ORDER CONTAINS HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY INFORMATION

Indirect Infringement

- I understand that to infringe a method claim, the accused infringer must have practiced all 19. the steps of the claimed method.
- I understand that where a company sells a product that is capable of directly infringing a 20. method claim when operated by customers, the seller can be liable under either an induced infringement or contributory infringement theory. However, I also understand that such indirect theories of liability require proof of a single, direct infringer in the first instance. Absent proof that a customer actually operated a device in an infringing manner, an induced or contributory infringement theory is not sustainable.
- 21. I understand that to be liable under an induced infringement theory, the defendant must actively induce the infringement of another. I understand that the United States Supreme Court has interpreted this basis of liability to require the defendant to intend the acts constituting direct infringement with knowledge that such acts constitute patent infringement. While this standard can be met by a showing of "willful blindness," I understand that "deliberate indifference to a known risk that a patent exists" is not sufficient. An alleged inducer's "willful blindness" will only give rise to liability when: (1) the inducer subjectively believes that there is a high probability that the induced acts constitute infringement; and (2) the inducer has taken deliberate actions to avoid learning the truth regarded the nature of the induced acts.
- 22. I understand that to be liable under a contributory infringement theory, the defendant must sell or offer to sell a component of a patented invention constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent. As is the case with induced infringement, I understand that a patentee must establish that the defendant had knowledge of the patent and the unlawful character of the acts constituting direct infringement. I also understand that the sale of any product capable of substantial non-infringing use cannot constitute contributory infringement.

C. Doctrine of Equivalents

- 23. If not literally infringed, a patent claim might still be infringed under the "doctrine of equivalents." It is my understanding that if there are claim limitations that are not literally present in the accused product, the claim might still be infringed if the differences between the accused product and the claims are insubstantial for each claim limitation. It is also my understanding that one test used to determine whether differences are insubstantial is to determine whether an accused element performs substantially the same function, in substantially the same way, to obtain substantially the same results of the claimed element. I am further informed by counsel that patent protection may be granted for any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.
- 24. I am also informed that an element in an accused product may be equivalent to a claim limitation if the two are known to be interchangeable at the time of alleged infringement.
- 25. I have been informed that the doctrine of equivalents does not always apply, such as when doing so would contradict statements made during the patent application process.
- 26. It is my understanding that the range of equivalents is also limited by the prior art to prohibit the patent owner from extending the scope of the claim to cover the prior art. Specifically, it is my understanding that the range of equivalents cannot include what the prior art anticipates or what the prior art renders obvious.
- 27. I understand that the doctrine of equivalents is subject to the "all elements" rule, which precludes a theory of infringement based on the doctrine of equivalents when the theory would read a limitation completely out of the claim.

III. OVERVIEW OF THE ACCUSED PRODUCTS

28. In this section, I set forth information relating to my understanding of the Accused Products, focusing on the products identified in the Singh Report. In the event Apple identifies additional infringing products, I reserve the right to supplement my opinions, including the opinions expressed in this section.

29. The Accused Products as set forth in the Singh Report include: Acclaim, Captivate, Continuum, Droid Charge, Epic 4G, Exhibit 4G, Fascinate, Galaxy Ace, Galaxy Prevail, Galaxy S (i9000), Galaxy S 4G, Galaxy S II (including the i9100, T-Mobile, AT&T, Epic 4G Touch and Skyrocket variants), Galaxy S Showcase (i500), Galaxy Tab 7.0, Galaxy Tab 10.1, Gem, Gravity Smart, Indulge, Infuse 4G, Intercept, Mesmerize, Nexus S, Nexus S 4G, Replenish, Sidekick, Transform, and Vibrant.

IV. OPINIONS ON NON-INFRINGEMENT OF THE '915 PATENT

- 30. As explained above, I understand that there is no literal infringement if even one limitation recited in an asserted claim is not found in the accused product. The sections below identify specific limitations that, in my opinion, are not found in the Accused Products. The absence of a discussion of a particular limitation from a particular claim, however, should not be construed as an admission that the limitation is present in the Accused Products.
- 31. My opinion is that none of the Asserted Claims of the '915 Patent are literally infringed by the Accused Products for the reasons set forth below. In addition, none of the Asserted Claims are infringed under the doctrine of equivalents because the Accused Products perform a substantially different function in a substantially different way to achieve a substantially different result.
 - A. General Problems with the Singh Report Infringement Analysis of the '915 Patent
 - The Singh Report Fails to Provide Support for Many of the Opinions
 Expressed.
- 32. The Singh Report fails to provide support for opinions alleging that the Accused Products infringe the '915 Patent. Specifically, the Singh Report fails to show that the Accused Products perform several of the key limitations present in each of the independent claims of the '915 Patent. In this section, I will describe several of these non-infringed limitations at a high level, but I note that Section IV.B will set forth in detail the reasons that the Accused Products do not infringe each and every claim of the '915 Patent.
 - (a) The number of touch inputs are not exclusively used to determine whether to scroll or scale

- 33. The Accused Products do not exclusively use the number of touch inputs to determine whether to scroll or scale. Rather, some Accused Products permit scrolling (e.g., panning) with one or more input points (e.g., two-finger scroll, three-finger scroll, etc.) As discussed in section IV.A.4, some Accused Products function similarly to Apple's own products in allowing scrolling using one or more input points. In practice, assuming that an application running on the Accused Products is able to scroll in a first axis, a user may put one or more fingers on the touch-sensitive surface of the device and "swipe" in a direction along the first axis in order to scroll. Additionally, when using two fingers on the touch-sensitive surface of some Accused Products, a user may switch between scrolling by "swiping" the fingers along a first axis and scaling by moving the fingers farther apart (or closer together using a "pinch")—without even lifting the two fingers from the screen.
- 34. Scrolling with two or more fingers, which is a recognized function on some Accused Products, does not satisfy the requirements for "distinguishing between a single input point . . . interpreted as the scroll operation and two or more input points . . . interpreted as the gesture operation" as recited in each of the independent claims of the '915 Patent.²
- 35. I note that the Singh Report does not show that the Accused Products invoke a scroll or gesture operation by distinguishing "between a single input point . . . interpreted as the scroll operation and two or more input points . . . interpreted as the gesture operation." Rather, the Singh Report states that a single input point triggers one method (e.g., handleTouchEventCommon()) while two or more input points triggers another method (e.g., handleMultiTouchInWebView()). I note that the Singh Report does not connect these methods to scroll or gesture operations. Only in the context of specific applications do the swipe and pinch gestures execute scroll or scale operations, but Singh fails to make these connections. The two methods cited in the Singh Report, handleTouchEventCommon() and handleMultiTouchInWebView(), are called in response to the user's touch inputs, but do not actually scroll or scale. Scrolling and scaling operations are application-dependent features.

² I note that when discussing "gestures" or "gesturing" in the context of the '915 Patent, these terms include both panning (e.g. scrolling) *and* scaling (e.g. zooming). *See* '915 Specification, Col. 7:8-10; 9:20-28.

- 36. Gestures on some Accused Products, like gestures on Apple's phones and tablets, include both single finger swipes and multi-finger pinch gestures. For this reason, Accused Products do not meet the requirement of the claimed limitation of "distinguishing between a single input point . . . interpreted as the scroll operation and two or more input points . . . interpreted as the gesture operation." The plain meaning of Claim 1[c] indicates that the term "scroll operation" is distinct from a "gesture operation." This confusion in terminology provided the basis for my conclusion that the '915 Patent is indefinite as set forth in my initial expert report on invalidity.
- 37. Although I am of the opinion that the Accused Products do not infringe the '915 Patent, should the '915 be found infringed by any of the Accused Products, below I detail several straightforward non-infringing alternatives. Several non-infringing alternatives have already been implemented, including the edge glow, an alternative for the "rubberbanding" behavior that I understand Apple asserts is embodied by Claim 2 of the '915 Patent. As an alternative for Claim 1[c], "distinguishing between a single input point . . . interpreted as the scroll operation and two or more input points . . . interpreted as the gesture operation," I note that a user can scroll with two or more fingers on the Accused Products, which does not meet the requirements of this limitation. Based on such already implemented functionality, I propose below that by applying straightforward heuristics to all touch input, the Accused Products could distinguish between scrolling, scaling, and rotating, simply based on the direction of the user's input, not based on the number of touch inputs. Because all the Accused Products already support this functionality, as evidenced by their support for multi-finger scrolling, I believe it would be straightforward to implement this functionality exclusively.
- 38. For at least these reasons, the Accused Products do not infringe any of the asserted claims of the '915 Patent.

(b) The Event Object does not "invoke"

- 39. The claim limitation relating to the event object invoking a scroll or gesture operation in Claim 1[c] is preceded by the language "creating an event object in response to the user input" in Claim 1[b]: both limitations refer to the same "event object."
 - 40. According to the documentation regarding the Android operating system:

Motion events describe movements in terms of an action code and a set of axis values. The action code specifies the state change that occurred such as a pointer going down or up. The axis values describe the position and other movement properties.

- 41. (See http://developer.android.com/reference/android/view/MotionEvent.html)
- 42. Paragraph 322 of the Singh Report asserts that the Android MotionEvent object represents the event object described in Claim 1. However, the MotionEvent object never invokes a scroll or gesture operation.
- 43. Instead of asserting that MotionEvent invokes a scroll or gesture operation, the Singh Report maintains that *another*, different event object includes a method, WebView.handleQueuedMotionEvent(), which invokes a scroll or gesture operation (e.g., handleTouchEventCommon() for a single input point and handleMultiTouchInWebView() for two or more input points). I agree with the Singh Report's apparent conclusion that the MotionEvent object does not invoke a scroll or gesture operation.
- 44. The Singh Report provides no additional discussion of how the "event object invokes" the scroll or gesture operation. See Singh's report ¶¶321-323
- 45. For at least reason, the Accused Products do not infringe any of the asserted claims of the '915 Patent.
 - 2. It Is My Understanding That The Singh Report Opinions Regarding Indirect Infringement Were Not Properly Disclosed In Apple's Infringement Contentions.
- 46. The opinions of the Singh Report rely on an indirect theory of infringement with respect to the method claims of the '915 Patent. The opinion, as stated by the Singh report, is that "the Samsung defendants have indirectly infringed the method claims of the '915 Patent." Singh Report at ¶ 304. However, it is my understanding that Apple's P.L.R. 3-1 infringement contentions did not previously disclose that it would be relying on this type of infringement theory with regard to the '915 Patent. The

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

cover pleadings to Apple's infringement contentions do contain the following boiler-plate paragraph regarding indirect infringement generally:

- 47. Samsung induces the infringement of others under 35 U.S.C. § 271(b) to the extent it contracts, instructs, or otherwise induces others to make, use, offer to sell, sell, or import the Accused Instrumentalities within or into the United States. Samsung also contributes to the infringement of others under 35 U.S.C. § 271(c) to the extent it offers to sell, sells, or imports part or all of the Accused Instrumentalities within or into the United States.
- 48. Apple P.L.R. 3-1 Infringement Contentions Section I.D. But, Apple's claim-by-claim infringement allegations (specifically, Exhibits 13-15 in support of Apple's P.L.R. 3-1 Infringement Contentions) make no mention of an induced or contributory infringement theory and do not at all distinguish between the method and apparatus/system claims of the '915 Patent. Further, the infringement contentions do not appear to identify any instances of direct infringement by downstream users.
- 49. Because Apple failed to adequately raise its indirect infringement allegations earlier, I must re-visit my non-infringement opinions and consider theories of inducement and contributory infringement for the first time since the service of the Singh Report. Accordingly, I reserve the right to supplement this report as new information regarding this theory of infringement develops.

3. Opinions in the Singh Report Fail To Adequately Address The Vast Majority Of Samsung "Accused Products"

50. The claim-by-claim infringement analysis contained in the Singh Report, as well as the claim charts offered in support, Singh Report Exhibits 16 and 17, purport to address only the Galaxy Tab 10.1 tablet and the Galaxy S II phone out of the 31 products characterized as infringing. *Compare, e.g.* Singh Report ¶ 301, with ¶ 305. Rather than engage in a detailed analysis with respect to the remaining 29 products, the Singh Report merely offers the following statement at the conclusion of his analysis for each of the major claims of the '915 Patent: "[b]ased on my inspection of Samsung source code for each major release of Android running on the Samsung Accused Products (Android 2.1, 2.2,

2.3, and 3.1), I believe that each Samsung Accused Product includes similar computer code that [meets the relevant claim limitation of the '915 Patent]." Singh Report ¶¶ 332, 339, 348, 354, 374, and 396.

51. The Singh Report claim charts make occasional references to prior versions of "analogous" Android code. Additionally, Exhibit 17 in support of the Singh Report purports to demonstrate infringing behavior on two additional devices (Vibrant and Captivate). However, absent a detailed, claim-by-claim explanation of how each device infringes the particular claims of the '915 Patent, I am unable to determine the basis for each infringement opinion expressed in the Singh Report. The vague assertions in the Singh Report regarding review of earlier versions of "analogous" *Android* code running on *some*, unspecified Accused Products are insufficient for me to analyze or rebut.

4. Apple's Alleged Practice Of The '915 Patent

52. I have also been asked to consider whether Apple's products practice the features described in the '915 Patent. Section VI.B of the Singh Report claims that each of "Apple's iPhone and iPad products" "practice the asserted claims of the '915 patent, and their ordinary and intended use practices the asserted method claims of the '915 patent." Singh Report ¶ 295, 298. However, I note that the Singh Report presents no evidence that an Apple product performs the claimed "determining whether the event object invokes a scroll or gesture operation by distinguishing between a single input point applied to the touch-sensitive display interpreted as the scroll operation and two or more input points applied to the touch-sensitive display that are interpreted as the gesture operation" as recited in each of the independent claims. In fact, one of the sections of the "Event Handling Guide for iOS" reference relied upon in the Singh Report suggests that scroll and gesture operations are not distinguished since "gestures *includes* ... swiping, panning or dragging a view" which is another way of describing a scroll operation. (Guide at 18, 40.) In other words, a user may scroll with a single input point (e.g., using one finger) or with more than one input point (e.g., using more than one finger). Consequently, Singh has not shown that the Apple products distinguish "between a single input point applied to the touch-sensitive display interpreted as the scroll operation and two or more input points applied to the touch-sensitive display that are interpreted as the gesture operation." As described below, the Samsung devices work in the same way—in a manner that is not covered by the claims.

28

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

23

24

25

26

1 53. 3 However, this testimony, like the "Event Handling Guide for iOS" reference does not show that Apple's products distinguish "between a single input point applied to the touch-sensitive display interpreted as 4 5 the scroll operation and two or more input points applied to the touch-sensitive display that are 6 interpreted as the gesture operation" as required by the independent claims of the '915 Patent. 7 54. It is my opinion that the Singh Report has failed to make even a threshold showing that 8 any Apple product practices any claims of the '915 Patent. 9 5. Apple's Priority Date For The '915 Patent 10 55. As discussed in my opening report, it is my understanding that the documentary evidence 11 offered by Apple does not support a conception date for the '915 Patent "no later than the summer and 12 fall of 2005." Nothing in Section VI.C of the Singh Report changes this understanding. I would note 13 that the opinion expressed in the Singh Report that "it appears that the claims of the '915 patent were 14 conceived no later than the summer and fall of 2005" is based largely on a historical narrative that is identical to an interrogatory response previously submitted by counsel for Apple. Singh Report ¶ 300; 16 see also Apple's Amended Objections and Response to Interrogatory No. 1. B. 17 Claim by Claim Non-Infringement Analysis and Basis for My Opinion 18 1. '915 Patent, Claim 1 Preamble 19 56. The Preamble recites: 20 1. A machine implemented method for scrolling on a touch-sensitive 21 display of a device comprising: 22 57. It is unclear whether the Singh Report finds that the Preamble is limiting. However, I 23 understand that the Preamble is not limiting on this claim. 24 2. '915 Patent, Claim 1[a] 25 58. Claim 1[a] recites: 26 receiving a user input, the user input is one or more input points applied 27 to the touch-sensitive display that is integrated with the device;

- 59. The Singh Report does not identify any specific component in the Accused Products that receives a user input. Singh merely asserts that "[e]ach '915 Accused Product ... includes a touch-sensitive display," but does not cite to any evidence to establish that any such touch-sensitive displays receive "one or more input points." Further, The Singh Report does not identify any software component that receives or handles the user input from the touch-sensitive display. Singh Report ¶ 308.
- 60. Additionally, I note that any Accused Products that do not receive user input in the form of "one or more input points" do not infringe Claim 1.

3. '915 Patent, Claim 1[b]

- 61. Claim 1[b] recites:

 creating an event object in response to the user input;
- 62. I note that any Accused Products that do not create an event object in response to user input in the form of "one or more input points" do not infringe this limitation.

4. '915 Patent, Claim 1[c]

63. Claim 1[c] recites:

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;

- 64. As discussed above, the Accused Products do not only use the number of touch inputs to determine whether a scroll or gesture operation is performed and therefore do not infringe this limitation.
- 65. Claim 1[c] requires "determining whether the event object invokes a scroll or gesture operation." I have previously submitted an expert report outlining the reasons for my conclusion that Claim 1 of the '915 Patent is indefinite and therefore invalid over the cited prior art.

1	66.	In the alternative, should the court find that Claim 1 is not indefinite and confirms	its
2	validity over	the cited prior art, it is my opinion that Claim 1 is not infringed by the Accused Produc	cts,
3	either literall	y or under the doctrine of equivalents, for at least the following reasons:	
4		(a) The Event Object does not "invoke"	
5	67.	The claim limitation relating to the event object invoking a scroll or gesture operation	ı in
6	Claim 1[c] is	s preceded by the language "creating an event object in response to the user input" in Cla	ıim
7	1[b]. Therefore	ore, both limitations refer to the same "event object."	
8	68.		
9			
10			
11	69.	I note that Android's MotionEvent object is used to "report movement (mouse, p	en,
12	finger, trackb	oall) events. Motion events may hold either absolute or relative movements and other da	ıta,
13	depending	on the type of device."	See
14	http://develog	per.android.com/reference/android/view/MotionEvent.html.)	
15		Some devices can report multiple movement traces at the same time.	
16		Multi-touch screens emit one movement trace for each finger. The	
17		individual fingers or other objects that generate movement traces are	
18		referred to as pointers. Motion events contain information about all of the	
19		pointers that are currently active even if some of them have not moved	
20		since the last event was delivered.	
21	70.	(Id.)	
22	71.		
23.			,
2			;h
, 			
26	72.	The Singh Report goes on to state that the	
27	:		
28			

-14-

1	n n
2	Cı
3	ge. 7].
4	73. The Singh Report provides no additional discussion of how the "event object invokes"
5	the scroll or gesture operation, as required by this limitation of Claim 1. See Singh's report ¶¶321-323.
6	74. For at least these reasons, the Accused Products do not infringe Claim 1 of the '915
7	Patent, either literally or under the doctrine of equivalents.
8	(b) The number of touch inputs are not used to determine whether to
9	scroll or scale
10	75. As described above in Section IV.A.1.a, on the Accused Products a user is able to scroll
11	with one or more fingers (e.g., two-finger scroll, three-finger scroll, etc.). Scrolling with two or more
12	fingers does not meet the limitation of "distinguishing between a single input point interpreted as the
13	scroll operation and two or more input points interpreted as the gesture operation."
14	76. I note that the Singh Report does not show that the Accused Products invoke a scroll or
15	gesture operation by distinguishing "between a single input point interpreted as the scroll operation
16	and two or more input points interpreted as the gesture operation." Rather, the Singh Report claims
17	that in response to a single input point
18	(l
19	note that the Singh Report does not connect these methods to scroll
20	or gesture operations.
21	77.
22	ſ
23	78. On the Galaxy Tab 10.1 tablet,
24	m _e
25	
26	
27	
28	

-15-

1	79.
2	V
3	ha
4	[t
5	80.
6	
7	
8	81. The Singh Report fails to prove infringement because the '915 Patent's detinition of
9	"gesture," found in the Specification, includes both scrolling and scaling operations. The Accused
10	Products therefore do not meet the claimed limitation of "distinguishing between a single input point
11	interpreted as the scroll operation and two or more input points interpreted as the gesture operation.
12	I also point out that Claim 1 uses the term "the scroll operation" to indicate that this operation is separate
13	and different from "the gesture operation." As set forth in my initial expert report on invalidity, the
14	conflation of scroll operations and gesture operations provided the basis for my conclusion that the '915
15	Patent is indefinite.
16	82. For at least these reasons, the Accused Products do not infringe Claim 1 of the '915
17	Patent either literally or under the doctrine of equivalents.
18	(c) Additional Comments
19	83. The Singh Report also relies or
20	
21	
22	5. '915 Patent, Claim 1[d]
23	84. Claim 1[d] recites:
24	issuing at least one scroll or gesture call based on invoking the scroll or
25	gesture operation;
26	85. As discussed above, systems that do not issue one or more scroll or gesture calls from the
27	event object created in response to user input in the form of "one or more input points" do not infringe
28	

this limitation. Because the Accused Products do not issue any scroll or gesture calls based on the MotionEvent object invoking the scroll or gesture operation, they do not meet this limitation.

6. '915 Patent, Claim 1[e]

- 86. Claim 1[e] recites:

 responding to at least one scroll call, if issued, by scrolling a window having a view associated with the event object based on an amount of a scroll with the scroll stopped at a predetermined position in relation to the user input;
- 87. As discussed above, systems that do not issue one or more scroll calls from an event object created in response to the user input in the form of "a single input point" does not infringe this limitation.
- 88. Further, the Singh Report fails to show how a "window having a view" is "associated with the" MotionEvent object, as required by this claim limitation.
- 89. Because the Accused Products do not issue a response to any scroll calls by scrolling a window having a view associated with the MotionEvent object, they do not meet this claim limitation.
- 90. For at least these reasons, the Accused Products do not infringe Claim 1 of the '915 Patent either literally or under the doctrine of equivalents.

7. '915 Patent, Claim 1[f]

- 91. Claim 1[f] recites:

 responding to at least one gesture call, if issued, by scaling the view associated with the event object based on receiving the two or more input points in the form of the user input.
- 92. As discussed above, systems that do not issue one or more scroll or gesture calls from the event object created in response to the user input in the form of "one or more input points" do not infringe this limitation.
- 93. Further, the Singh Report fails to show how "the view" is "associated with the" MotionEvent object, as required by this claim limitation.

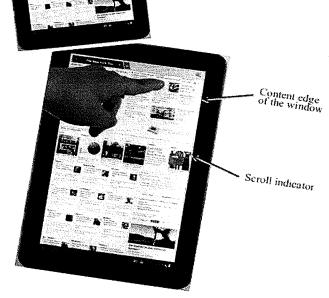
1	94.	For at least these reasons, the Accused Products do not infringe Claim 1 of the '915
2	Patent either	literally or under the doctrine of equivalents.
3		8. '915 Patent, Claim 2
4	95.	Claim 2 recites:
5		2. The method as in claim 1, further comprising: rubberbanding a
6		scrolling region displayed within the window by a predetermined
7		maximum displacement when the scrolling region exceeds a window edge
8		based on the scroll.
9	96.	Claim 2 depends on Claim 1. For the same reasons that the Accused Products do not
10	infringe Clai	m 1, they do not infringe Claim 2. I incorporate by reference in their entirety my
11	explanations	and opinions directed to the non-infringement of Claim 1 of the '915 Patent, above.
12	97.	For at least these reasons, the Accused Products do not infringe Claim 2 of the '915
13	Patent either	literally or under the doctrine of equivalents.
14		9. '915 Patent, Claim 3
15	98.	Claim 3 recites:
16		3. The method as in claim 1, further comprising: attaching scroll
17		indicators to a content edge of the window.
18	99.	I have previously submitted an expert report outlining the reasons for my conclusion that
19	Claim 3 of the	e '915 Patent is indefinite and is invalid over the cited prior art.
20	100.	In the alternative, should the court find that Claim 3 is not indefinite and confirms its
21	validity over	the cited prior art, it is my opinion that Claim 3 is not infringed by the Accused Products.
22		
23		
24		
25		
26		

27

101. I find it noteworthy that even Apple's expert is confused by the difference between claims 3 and 4, which describe attaching scroll indicators to a content edge (Claim 3) or to a window edge (Claim 4).

¶ 363 Content Edge:





Scroll indicator

- 102. In the Singh Report, the figure showing "attaching scroll indicators to a content edge of the window" (Claim 3) is identical to that showing "attaching scroll indicators to the window edge" (Claim 4). *Compare* Singh Report ¶ 363 with ¶ 368.
- 103. To the extent that Singh actually intended the figures to be identical, I agree. However, I note that the figure in ¶ 368 likely contains an error the label should read "window edge."
- 104. Claim 3 is dependent on Claim 1. For the reasons previously stated, the Accused Products do not infringe Claim 1 and, therefore, does not infringe Claim 3.
- 105. For at least these reasons, the Accused Products do not infringe Claim 3 of the '915 Patent either literally or under the doctrine of equivalents.

1		10. '915 Patent, Claim 4
2	106.	Claim 4 recites:
3		4. The method as in claim 1, further comprising: attaching scroll
4		indicators to the window edge.
5	107.	Claim 4 is dependent on Claim 1. For the reasons previously stated, the Accused
6	Products do n	ot infringe Claim 1 and, therefore, does not infringe Claim 4.
7	108.	For at least these reasons, the Accused Products do not infringe Claim 4 of the '915
8	Patent either	literally or under the doctrine of equivalents.
9		11. '915 Patent, Claim 5
10	109.	Claim 5 recites:
11		5. The method as in claim 1, wherein determining whether the event
12		object invokes a scroll or gesture operation is based on receiving a drag
13		user input for a certain time period.
14	110.	As stated above, the MotionEvent object identified in the Singh Report as the event
15	object created	I in response to the user input does not invoke a scroll or gesture operation as required by
16	'915 Claim 1[c]. Thus, in my opinion, this limitation is not met and Claim 5 is not infringed.
17	111.	Claim 5 is dependent on Claim 1. For the reasons previously stated, the Accused
18	Products do n	ot infringe Claim 1 and, therefore, does not infringe Claim 5.
19	112.	For at least these reasons, the Accused Products do not infringe Claim 5 of the '915
20	Patent either l	iterally or under the doctrine of equivalents.
21		12. '915 Patent, Claim 6
22	113.	Claim 6 recites:
23		6. The method as in claim 1, further comprising: responding to at least
24		one gesture call, if issued, by rotating a view associated with the event
25		object based on receiving a plurality of input points in the form of the user
26		input.
27		

Claim 6 is dependent on Claim 1. For the reasons previously stated, the Accused 1 114. 2 Products do not infringe Claim 1 and, therefore, does not infringe Claim 6. 3 For at least this reason, the Accused Products do not infringe Claim 6 of the '915 Patent 115. 4 either literally or under the doctrine of equivalents. 13. 5 '915 Patent, Claim 7 116. Claim 7 recites: 6 7 7. The method as in claim 1, wherein the device is one of: a data 8 processing device, a portable device, a portable data processing device, a 9 multi touch device, a multi touch portable device, a wireless device, and a 10 cell phone. 11 Claim 7 is dependent on Claim 1. For the reasons previously stated, the Accused 117. 12 Products do not infringe Claim 1 and, therefore, does not infringe Claim 7. 13 For at least this reason, the Accused Products do not infringe Claim 7 of the '915 Patent either literally or under the doctrine of equivalents. 14 15 14. '915 Patent, Claim 8 16 119. Claim 8 recites: 17 A machine readable storage medium storing executable program 18 instructions which when executed cause a data processing system to 19 perform a method comprising: [a] receiving a user input, the user input is one or more input points 20 applied to a touch-sensitive display that is integrated with the data processing system; 21 [b] creating an event object in response to the user input; 22 [c] determining whether the event object invokes a scroll or gesture 23 operation by distinguishing between a single input point applied to the 24 touch-sensitive display that is interpreted as the scroll operation and two 25 or more input points applied to the touch-sensitive display that are 26 interpreted as the gesture operation; 27

1	<u> </u>	[d] issuing at least one scroll or gesture call based on invoking the scroll
2		or gesture operation;
3		[e] responding to at least one scroll call, if issued, by scrolling a window
4		having a view associated with the event object; and
5		[f] responding to at least one gesture call, if issued, by scaling the view
6		associated with the event object based on receiving the two or more input
7		points in the form of the user input.
8	120.	See analysis for Claim 1.
9	121.	Just as the Accused Products do not meet the claim limitations set forth in claim elements
10	1[a]-[f], they	do not meet the claim limitations set forth in claim elements 8[a]-[f]. It is my opinion that
11	the Accused	Products therefore do not infringe Claim 8 either literally or under the doctrine of
12	equivalents.	
13		15. '915 Patent, Claim 9
14	122.	Claim 9 recites:
15		9. The medium as in claim 8, further comprising: rubberbanding a
16		scrolling region displayed within the window by a predetermined
17		maximum displacement when the scrolling region exceeds a window edge
18		based on the scroll.
19	123.	Claim 9 generally tracks the language of Claim 2. I incorporate by reference in its
20	entirety my ex	splanations and opinions directed to non-infringement of Claims 2 and 8 of the '915 Patent,
21	above.	
22	124.	Also, Claim 9 depends on Claim 8. For the reasons previously stated, the Accused
23	Products do n	ot infringe Claim 8 and, therefore, does not infringe Claim 9.
24	125.	For at least these reasons, the Accused Products do not infringe Claim 9 of the '915
25	Patent either l	iterally or under the doctrine of equivalents.
26		16. '915 Patent, Claim 10
27	126.	Claim 10 recites:

- 10. The medium as in claim 8, further comprising: attaching scroll indicators to a content edge of the window.
- 127. I have previously submitted an expert report outlining the reasons for my conclusion that Claim 10 of the '915 Patent is indefinite and is invalid over the cited prior art.
- 128. In the alternative, should the court find that Claim 10 is not indefinite and confirms its validity over the cited prior art, it is my opinion that Claim 10 is not infringed by the Accused Products.
- 129. In the Singh Report, the figure showing "attaching scroll indicators to a content edge of the window" (Claim 3) is identical to that showing "attaching scroll indicators to the window edge" (Claim 4). *Compare* Singh Report ¶ 363 with ¶ 368.
- 130. To the extent that Singh actually intended the figures to be identical, I agree. However, I note that the figure in ¶ 368 likely contains an error the label should read "window edge."
- 131. Claim 10 generally tracks the language of Claim 3. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 3 and 8 of the '915 Patent, above.
- 132. Also, Claim 10 is dependent on Claim 8. For the reasons previously stated, the Accused Products do not infringe Claim 8 and, therefore, do not infringe Claim 10.
- 133. For at least these reasons, the Accused Products do not infringe Claim 10 of the '915 Patent either literally or under the doctrine of equivalents.

17. '915 Patent, Claim 11

- 134. Claim 11 recites:
 - 11. The medium as in claim 8, further comprising: attaching scroll indicators to the window edge.
- 135. Claim 11 generally tracks the language of Claim 4. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 4 and 8 of the '915 Patent, above.
- 136. Claim 11 is dependent on Claim 8. For the reasons previously stated, the Accused Products do not infringe Claim 8 and, therefore, do not infringe Claim 11.

137. For at least these reasons, the Accused Products do not infringe Claim 11 of the '915 Patent either literally or under the doctrine of equivalents.

18. '915 Patent, Claim 12

138. Claim 12 recites:

- 12. The method as in claim 8, wherein determining whether the event object invokes a scroll or gesture operation is based on receiving a drag user input for a certain time period.
- 139. As stated above, the MotionEvent object identified in the Singh Report as the event object created in response to the user input does not invoke a scroll or gesture operation as required in '915 Claim 1[c]. Thus, in my opinion, this limitation is not met and Claim 12 is not infringed.
- 140. Claim 12 generally tracks the language of Claim 5. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 5 and 8 of the '915 Patent, above.
- 141. Claim 12 is dependent on Claim 8. For the reasons previously stated, the Accused Products do not infringe Claim 8 and, therefore, do not infringe Claim 12.
- 142. For at least these reasons, the Accused Products do not infringe Claim 12 of the '915 Patent either literally or under the doctrine of equivalents.

19. '915 Patent, Claim 13

- 143. Claim 13 recites:
 - 13. The medium as in claim 8, further comprising: responding to at least one gesture call, if issued, by rotating a view associated with the event object based on receiving a plurality of input points in the form of the user input.
- 144. Claim 13 generally tracks the language of Claim 6. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 6 and 8 of the '915 Patent, above.

1	145.	Claim 13 is dependent on Claim 8. For the reasons previously stated, the Accused
2	Products do n	ot infringe Claim 8 and, therefore, do not infringe Claim 13.
3	146.	For at least this reason, the Accused Products do not infringe Claim 13 of the '915 Patent
4	either literally	or under the doctrine of equivalents.
5		20. '915 Patent, Claim 14
6	147.	Claim 14 recites:
7		14. The medium as in claim 8, wherein the device is one of: a data
8		processing device, a portable device, a portable data processing device, a
9		multi touch device, a multi touch portable device, a wireless device, and a
10		cell phone.
11	148.	Claim 14 generally tracks the language of Claim 7. I incorporate by reference in their
12	entirety my ex	xplanations and opinions directed to non-infringement of Claims 7 and 8 of the '915 Patent,
13	above.	
14	149.	Claim 14 is dependent on Claim 8. For the reasons previously stated, the Accused
15	Products do n	ot infringe Claim 8 and, therefore, do not infringe Claim 14.
16	150.	For at least this reason, the Accused Products do not infringe Claim 14 of the '915 Patent
17	either literally	or under the doctrine of equivalents.
18		21. '915 Patent, Claim 15
19	151.	Claim 15 recites:
20		15. An apparatus comprising:
21		[a] means for receiving a user input, the user input is one or more input
22		points applied to a touch-sensitive display that is integrated with the data
23		processing system;
24		[b] means for creating an event object in response to the user input;
25		[c] means for determining whether the event object invokes a scroll or
26		gesture operation by distinguishing between a single input point applied to
27		the touch-sensitive display that is interpreted as the scroll operation and

-25-

1		two or more input points applied to the touch-sensitive display that are	
2		interpreted as the gesture operation;	
3		[d] means for issuing at least one scroll or gesture call based on invoking	
4		the scroll or gesture operation;	
5		[e] means for responding to at least one scroll call, if issued, by scrolling	
6		a window having a view associated with the event object; and	
7		[f] means for responding to at least one gesture call, if issued, by scaling	
8		the view associated with the event object based on receiving the two or	
9		more input points in the form of the user input.	
10	152.	See analysis for claims 1 and 8.	
11	153.	Claim 15 generally tracks the language of Claims 1 and 8. I incorporate by reference in	
12	their entirety my explanations and opinions directed to non-infringement of Claims 1 and 8 of the '91		
13	Patent, above	·	
14	154.	Just as the Accused Products do not meet the claim limitations set forth in claim elements	
15	1[a]-[f] and 8[a]-[f], they do not meet the claim limitations set forth in claim elements 15[a]-[f]. It is my		
16	opinion that the Accused Products therefore do not infringe Claim 15 either literally or under the		
17	doctrine of ed	quivalents.	
18		22. '915 Patent, Claim 16	
19	155.	Claim 16 recites:	
20		16. The apparatus as in claim 15, further comprising: means for	
21		rubberbanding a scrolling region displayed within the window by a	
22		predetermined maximum displacement when the scrolling region exceeds	
23		a window edge based on the scroll.	
24	156.	Claim 16 generally tracks the language of Claims 2 and 9. I incorporate by reference in	
25	their entirety my explanations and opinions directed to non-infringement of Claims 2, 9, and 15 of the		
26	'915 Patent, above.		

1			
157.	Also, Claim 16 is dependent on Claim 15. For the reasons previously stated, the Accused		
Products do not infringe Claim 15 and, therefore, do not infringe Claim 16.			
158.	For at least these reasons, the Accused Products do not infringe Claim 16 of the '915		
Patent either literally or under the doctrine of equivalents.			
	23. '915 Patent, Claim 17		
159.	Claim 17 recites:		
	17. The medium as in claim 15, further comprising: attaching scroll		
	indicators to a content edge of the window.		
160.	I have previously submitted an expert report outlining the reasons for my conclusion that		
Claim 17 of the '915 Patent is indefinite and is invalid over the cited prior art.			
161.	In the alternative, should the court find that Claim 17 is not indefinite and confirms its		
validity over	the cited prior art, it is my opinion that Claim 17 is not infringed by the Accused Products.		
162.	In the Singh Report, the figure showing "attaching scroll indicators to a content edge of		
the window"	(Claim 3) is identical to that showing "attaching scroll indicators to the window edge"		
(Claim 4). Compare Singh Report ¶ 363 with ¶ 368.			
163.	To the extent that Singh actually intended the figures to be identical, I agree. However, I		
note that the figure in ¶ 368 likely contains an error – the label should read "window edge."			
164.	Claim 17 generally tracks the language of Claims 3 and 10. I incorporate by reference in		
their entirety my explanations and opinions directed to non-infringement of Claims 3, 10, and 15 of the			
'915 Patent, above.			
165.	Also, Claim 17 is dependent on Claim 15. For the reasons previously stated, the Accused		
Products do not infringe Claim 15 and, therefore, do not infringe Claim 17.			
166.	For at least these reasons, the Accused Products do not infringe Claim 17 of the '915		
Patent either	literally or under the doctrine of equivalents.		

'915 Patent, Claim 18

24.

167. Claim 18 recites:

1		18. The apparatus as in claim 15, further comprising: means for	
2		attaching scroll indicators to the window edge.	
3	168.	Claim 18 generally tracks the language of Claims 4 and 11. I incorporate by reference in	
4	their entirety	my explanations and opinions directed to non-infringement of Claims 4, 11, and 15 of the	
5	'915 Patent, a	pove.	
6	169.	Also, Claim 18 is dependent on Claim 15. For the reasons previously stated, the Accused	
7	Products do n	ot infringe Claim 15 and, therefore, do not infringe Claim 18.	
8	170.	For at least this reason, the Accused Products do not infringe Claim 18 of the '915 Patent	
9	either literally or under the doctrine of equivalents.		
10		25. '915 Patent, Claim 19	
11	171.	Claim 19 recites:	
12		19. The apparatus as in claim 15, wherein determining whether the event	
13		object invokes a scroll or gesture operation is based on receiving a drag	
14		user input for a certain time period.	
15	172.	As stated above, the MotionEvent object identified in the Singh Report as the event	
16	object created	in response to the user input does not invoke a scroll or gesture operation as required in	
17	'915 Claim 1[e]. Thus, in my opinion, this limitation is not met and Claim 19 is not infringed.	
18	173.	Claim 19 generally tracks the language of Claims 5 and 12. I incorporate by reference in	
19	their entirety	my explanations and opinions directed to non-infringement of Claims 5, 12, and 15 of the	
20	'915 Patent, above.		
21	174.	Also, Claim 19 is dependent on Claim 15. For the reasons previously stated, the Accused	
22	Products do n	ot infringe Claim 15 and, therefore, do not infringe Claim 19.	
23	175.	For at least this reason, the Accused Products do not infringe Claim 19 of the '915 Patent	
24	either literally or under the doctrine of equivalents.		
25		26. '915 Patent, Claim 20	

27

26

Claim 20 recites:

176.

20. The medium as in claim 15, further comprising: means for responding
to at least one gesture call, if issued, by rotating a view associated with
the event object based on receiving a plurality of input points in the form
of the user input.

- 177. Claim 20 generally tracks the language of Claims 6 and 13. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 6, 13, and 15 of the '915 Patent, above.
- 178. Also, Claim 20 is dependent on Claim 15. For the reasons previously stated, the Accused Products do not infringe Claim 15 and, therefore, do not infringe Claim 20.
- 179. For at least this reason, the Accused Products do not infringe Claim 20 of the '915 Patent either literally or under the doctrine of equivalents.

27. '915 Patent, Claim 21

- 180. Claim 21 recites:
 - 21. The apparatus as in claim 15, wherein the device is one of: a data processing device, a portable device, a portable data processing device, a multi touch device, a multi touch portable device, a wireless device, and a cell phone.
- 181. Claim 21 generally tracks the language of Claims 7 and 14. I incorporate by reference in their entirety my explanations and opinions directed to non-infringement of Claims 7, 14, and 15 of the '915 Patent, above.
- 182. Also, Claim 21 is dependent on Claim 15. For the reasons previously stated, the Accused Products do not infringe Claim 15 and, therefore, do not infringe Claim 21.
- 183. For at least this reason, the Accused Products do not infringe Claim 21 of the '915 Patent either literally or under the doctrine of equivalents.
 - C. Samsung Devices Do Not Indirectly Infringe The Method Claims Of The '915 Patent
- 184. The Singh Report offers a definition of the term "ordinary and intended use," which is used throughout the '915 infringement analysis:

By "ordinary and intended use" in this section of my Report, I mean actions that virtually *every* user of a Samsung Accused Product would perform when using the Accused Product, and which Samsung encouraged and intended the user to perform.

Singh Report ¶ 304.

apparently attempting to establish that the features are inevitably used by purchasers of Samsung devices such that further evidence of indirect infringement is unnecessary. I disagree that the opinions and evidence offered in the Singh Report support a viable indirect infringement theory. I note that it is not inevitable for users to user the zoom feature much if at all. There are many normal uses of the Accused Products, as covered below in Section IV.D, which do not require zooming. For example, users that use the device for email or texting have no reason to zoom. Furthermore, in many applications running on the Accused Products, a user is not provided with any ability to zoom.

1. The Method Claims Of The '915 Patent Are Not Part Of The "Ordinary And Intended Use" Of The Samsung Devices.

- 186. Each of the '915 method claims asserted by Apple tracks the language of Claim 1 or its dependent claims. Independent Claim 1 requires that an "event object invokes a scroll or gesture operation by distinguishing between a single input point ... that is interpreted as the scroll operation and two or more input points ... that are interpreted as the gesture operation."
- 187. For several reasons, the functionality associated with this limitation is not part of the "ordinary and intended use" of the Accused Products. First, as discussed above, the Accused Products permit scrolling (*i.e.*, panning) with one *or more* input points (*e.g.*, two-finger scroll, three-finger scroll, etc.).
- 188. The Singh Report opines that users would use a single finger to scroll and two or more fingers to zoom. Singh Report at ¶ 304. Based on my experience, users commonly scroll using two or more fingers.

- 189. For these reasons, I disagree with the Singh Report that using a single finger to scroll and two or more fingers to zoom as required by the independent claims of the '915 Patent is part of the "ordinary and intended use" of the Accused Products, or that "virtually all users of the Samsung Accused Products would engage in direct infringement of the '915 Patent." *See* Singh Report ¶ 305.
 - 2. The Singh Report Cites No Evidence Of Direct Infringement By Users And No Evidence That Samsung Intended Users To Engage In The Acts

 Constituting Infringement With Intent That They Infringe.
- 190. Finally, I understand that a necessary prerequisite to an indirect infringement theory is evidence of direct infringement by another. The Singh Report cites to no evidence and I am unaware of any evidence establishing that any person or entity caused the Accused Products to engage in the allegedly infringing behavior at any time.
- 191. Further, under my understanding of the law, an inducement of infringement theory requires the alleged inducer to not only intend the acts constituting direct infringement be done, but to intend such acts with knowledge that they constitute infringement. Although the Singh report repeatedly attempts (unsuccessfully) to show that Samsung "encouraged and intended" users to engage in the acts alleged to constitute infringement, I would note that the Report does not even address the question whether Samsung had knowledge that the acts allegedly encouraged constituted direct infringement of the '915 Patent. Further, I understand from counsel that to prove indirect infringement Apple must demonstrate that the infringer knew or should have known that their acts encouraged a direct infringement of the patent by others. I note that the Singh Report does not address this question either.
- 192. There are numerous non-infringing uses of the phone that are not related to the features of the '915 Patent. For example, if a user exclusively uses one or more of the following applications, there is no implication of any of the features of the '915 Patent accused in the Singh Report:
 - Media player
 - Phone
 - Calculator
 - Contacts

193. A common non-infringing use of the Accused Products would be to use the phone in conjunction with personal information management functions—without use of the browser functions which is the only function mentioned as allegedly infringing the '915 Patent in the Singh Report. It is my opinion that the Singh Report does not make even a threshold showing that any of the method claims of the '915 Patent are indirectly infringed.

D. Other Non-infringing Alternatives

194. As stated in Section IV.B of this report, it is my opinion that the Accused Products do not

194. As stated in Section IV.B of this report, it is my opinion that the Accused Products do not infringe any claims of the '915 Patent. I note that there are several additional non-infringing alternatives which can be implemented in the Accused Products which are simple, if not trivial, to implement. Further, several of these non-infringing alternatives (e.g., tilt zoom, over-scroll glow, dimensional distortion, and list stretching) have already been implemented in at least some of the Accused Products.

195. The Singh Report indicates that any design around of the '915 Patent would be undesirable because the resultant product would have much less functionality:

In my opinion, any such re-design would make the Accused Products much less useable, render them inconvenient for users, and deprive them of intuitive functionality that smartphone and tablet users have come to expect. (¶ 456)

196. I disagree. As the following sections illustrate, there are many easy to implement and cost effective non-infringing alternatives that would provide at least equivalent functionality to the current modes of operation.

1. Removing the test for number of inputs

197.

23 || as

ļ While I disagree that the Accused Products infringe the '915 Patent for the reasons explained above, a straightforward and fully functional non-infringing alternative is available. 199. The proposed modification would not read on Claim 1[c], which requires "determining whether the event object invokes a scroll or gesture operation by distinguishing between a single input point applied to the touch-sensitive display interpreted as the scroll operation and two or more input points applied to the touch-sensitive display that are interpreted as the gesture operation." 200. I further note that the Android's MotionEvent class already contains the information required: Some devices can report multiple movement traces at the same time. Multi-touch screens emit one movement trace for each finger. individual fingers or other objects that generate movement traces are referred to as pointers. Motion events contain information about all of the

pointers that are currently active even if some of them have not moved since the last event was delivered.

201. (See http://developer.android.com/reference/android/view/MotionEvent.html.)

202.

203. The proposed non-infringing alternative clearly does not infringe the '915 Patent because

, as required by Claim 1[c]:

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;

204. (emphasis added.) Rather,

2. Tilt zoom

205. Tilt zoom is a non-infringing, commercially acceptable alternative to multi-touch gesturing that Samsung has offered in at least the Galaxy Tab 10.1 before this suit was even filed. The tilt zoom feature requires users to activate the tilt zoom mode by placing their thumbs in the lower left and right corners of the screen and then tilting the entire device downwards and upwards to zoom in and out, respectively. This functionality adds the extra step of initiating a scaling mode (*i.e.*, "gesture operation"), by touching the surface and *then* tilting the tablet.

206. If the Accused Products were found to infringe the '915 Patent, using the tilt zoom functionality in lieu of a traditional multi-touch gesture (e.g., pinch-to-zoom) would not implicate the "two or more input points applied to the touch-sensitive display that are interpreted as a gesture operation." Tilt zoom requires two input points to activate the zooming mode, in addition to tilting the

entire device, which is interpreted as the gesture operation--not merely two or more touch input points standing alone.

207. In my opinion, since the functionality is already present in devices such as the Galaxy Tab 10.1, this non-infringing alternative would be inexpensive and easy to implement.

3. Over-scroll glow

- 208. The over-scroll glow is a non-infringing, commercially acceptable alternative to "rubberbanding" that Samsung already offers in at least the Galaxy S II.
- 209. Instead of a rubberbanding animation, the over-scroll glow shows a "glow" on the edge of the screen that the user is attempting to scroll past. For example, when a user scrolls to the end of a list of contacts and continues to attempt to scroll down, an over-scroll glow will be visible on the edge of the list. The over-scroll glow can be animated to "illuminate" more bright depending upon a user input in the same manner that the elasticity of the rubberbanding animation may depend on a user input.
- 210. In my opinion, since the functionality is already present in devices such as the Galaxy S II, this non-infringing alternative would be inexpensive and easy to implement.

4. Dimensional distortion

- 211. Dimensional distortion is a non-infringing, commercially acceptable alternative to "rubberbanding" that Samsung already offers in at least the Galaxy S II (Gallery application).
- 212. Instead of a rubberbanding animation, dimensional distortion manipulates content into what appears to be another "dimension" (e.g. different from the two dimensional flat plane). Dimensional distortion contorts content that the user is attempting to scroll past. For example, when a user scrolls to the end of a list of pictures in the Gallery application and continues to attempt to scroll across, dimensional distortion will manipulate the list of available pictures.
- 213. The dimensional distortion effect can be animated to move the content "deeper" into the third dimensional view depending upon a user input in the same manner that the elasticity of the rubberbanding animation may depend on a user input.
- 214. In my opinion, since the functionality is already present in devices such as the Galaxy S II, this non-infringing alternative would be inexpensive and easy to implement.

5. List stretching

- 215. List stretching is a non-infringing, commercially acceptable alternative to "rubberbanding" that Samsung already offers in at least one Accused Product.
- 216. Instead of a rubberbanding animation, list stretching manipulates content such that the space between corresponding rows of content increases as a user is attempts to scroll past an edge of the content. For example, when a user scrolls to the end of a list of contracts and continues to attempt to scroll, content stretching will increase the amount of space between each contact row
- 217. The list stretching effect can be animated to move the rows content father apart depending upon a user input in the same manner that the elasticity of the rubberbanding animation may depend on a user input.
- 218. In my opinion, since the functionality is already present in at least one Accused Product, this non-infringing alternative would be inexpensive and easy to implement.

E. Response to the Hauser Report Regarding Functionality Described in the '915 Patent.

219. I have also been asked to respond to technical descriptions relating to the '915 Patent in the Hauser Report. The Hauser Report explains that, "In order to obtain reliable data from a conjoint exercise, it is important to have clear descriptions of the features and levels." (Hauser ¶ 63.) The report includes several videos showing "touchscreen capability levels (for both smartphones and tablets) . . . chosen such that they would represent a product that included a non-infringing alternative for one or more of the patents at issue." (Id.) Specifically, the Hauser Report says:

The touchscreen capability levels in the smartphone survey were chosen to capture the following Patents: (i) '828, (ii) '915, and (iii) combination of '915, '381, and '163. The touchscreen capability levels in the tablet survey were chosen to capture the following Patents: (i) '607, (ii) '915, and (iii) combination of '915, '381, and '163.

(Hauser at footnote 42.)

- 220. The Hauser Report does not attempt to explain the functionality claimed by the '915 Patent, saying only that, "The specific technical descriptions of the touchscreen capability levels and information about their functionality were provided to me by counsel. I have not reviewed or interpreted the patent claims myself and do not have a professional opinion on that matter." (Hauser ¶ 63.)
- 221. With respect to the '915 Patent, the most relevant feature in the survey is the "Full Multi-Touch, Auto-Switch (1 to 2 Fingers)" capability. However, the second video demonstration in both the phone and tablet surveys introduces a mode referred to as "Very Limited Multi-Touch, Auto-Switch (1 to 2 Fingers)." This mode is misleading both with respect to the functionality claimed by the '915 Patent and the behavior of Accused Products. A mobile phone or tablet computer with a touchscreen that works occasionally, but unreliably, is not claimed by the '915 Patent. Samsung's Accused Products do not work this way. For that matter, even Apple's phones and tablets do not exhibit the behavior shown in these videos.
- 222. The videos are also irrelevant to any possible non-infringing alternatives for the '915 Patent. The second Phone Touchscreen demonstrative (found at http://www.surveyplus.com/survey1202asps/play_video.asp?vid=32) includes a mode that "doesn't always reliably detect intent of contact with touchscreen." Somewhat similarly, the second Tablet Touchscreen demonstrative (http://www.surveyplus.com/survey1202asts/play_video.asp?vid=32) "works in a single-touch mode," with "very limited multi-touch capability," and some multi-touch gestures "like pinch to zoom, will work, but with poor response." An unreliable touchscreen also does not represent a non-infringing alternative to the '915 Patent, as Apple would claim it still infringed when the device responded properly to the user's touch input.
- 223. Accordingly, to the extent the opinion on the value of the '915 Patent in the Hauser Report reflects any results from the survey participants' responses to these demonstratives, those opinions are invalid.

25

1

2

3

4

5

6

7

8

10

11

12

13

14

16

17

18

19

21

22

23

24

26

27

V. OPINIONS ON NON-INFRINGEMENT OF THE '163 PATENT

- 224. As stated above, I understand that there is no literal infringement if even one limitation recited in an asserted claim is not found in the accused product. The sections below identify specific limitations that, in my opinion, are not found in the Accused Products.
- 225. My opinion is that none of the Asserted Claims of the '163 Patent are literally infringed by the Accused Products for the reasons set forth below. In addition, none of the Asserted Claims are infringed under the doctrine of equivalents because the Accused Products perform a substantially different function in a substantially different way to achieve a substantially different result.
 - A. General Problems with the Singh Report Infringement Analysis of the '163 Patent
 - It Is My Understanding That The Singh Report Opinions Regarding Indirect Infringement Were Not Properly Disclosed In Apple's Infringement Contentions.
- 226. The opinions of the Singh Report rely on an indirect theory of infringement with respect to the method claims of the '163 Patent. The opinion, as stated by the Singh report, is that "the Samsung defendants have indirectly infringed the method claims of the '163 Patent." Singh Report at ¶ 41. However, it is my understanding that Apple's P.L.R. 3-1 infringement contentions did not previously disclose that it would be relying on this type of infringement theory with regard to the '163 Patent. The cover pleadings to Apple's infringement contentions do contain the following boiler-plate paragraph regarding indirect infringement generally:

Samsung induces the infringement of others under 35 U.S.C. § 271(b) to the extent it contracts, instructs, or otherwise induces others to make, use, offer to sell, sell, or import the Accused Instrumentalities within or into the United States. Samsung also contributes to the infringement of others under 35 U.S.C. § 271(c) to the extent it offers to sell, sells, or imports part or all of the Accused Instrumentalities within or into the United States.

- 227. Apple P.L.R. 3-1 Infringement Contentions Section I.D. But, Apple's claim-by-claim infringement allegations (specifically, Exhibits 10, 11, & 12 in support of Apple's P.L.R. 3-1 Infringement Contentions) make no mention of an induced or contributory infringement theory and do not at all distinguish between the method and apparatus/system claims of the '163 Patent. Further, the infringement contentions do not appear to identify any instances of direct infringement by downstream users.
- 228. Because Apple failed to adequately raise its indirect infringement allegations earlier, I must re-visit my non-infringement opinions and consider theories of inducement and contributory infringement for the first time since the service of the Singh Report. Accordingly, I reserve the right to supplement this report if new information regarding this theory of infringement develops.

2. Opinions Expressed in the Singh Report Fail To Adequately Address The Vast Majority Of Samsung "Accused Products."

- 229. The claim-by-claim infringement analysis contained in the Singh Report, as well as the claim charts offered in support, Singh Report Exhibits 4 and 5, purport to address only 2 (Galaxy Tab 10.1 and Galaxy S II) of the 31 products characterized in the Report as infringing. *Compare, e.g.* Singh Report ¶ 38, with ¶ 43. Rather than engage in a detailed analysis with respect to the 29 remaining products, the Singh Report merely offers the following statement at the conclusion of the analysis for each major claim of the '163 Patent: "[b]ased on my inspection of Samsung source code for each major release of Android running on the Samsung Accused Products (Android 2.1, 2.2, 2.3, and 3.1), I believe that each Samsung Accused Product includes similar computer code that [meets the relevant claim limitation of the '163 Patent]." Singh Report ¶¶ 85, 109, 119, 160, 212.
- 230. The Singh Report claim charts do make stray references to prior versions of "analogous" Android code. Additionally, Exhibits 13 and 14 in support of the Singh Report do purport to demonstrate infringing behavior on 2 additional devices (Vibrant and Galaxy S Showcase). However, absent a more detailed, claim-by-claim explanation of how each of these additional devices infringe the particular claims of the '163 Patent, I am unable to determine the basis for each infringement opinion in the Singh Report. Vague assertions to earlier versions of "analogous" *Android* code running on *some*,

unspecified Accused Products, do not establish that the remaining devices behave the same or similarly to the devices the Singh Report has chosen to analyze in-depth.

231. Because the other Accused Products were not discussed in detail, it is my understanding that the Singh Report has failed to make even a threshold showing of infringement with respect to all but the Galaxy Tab 10.1 and the Galaxy S II product. Thus I have only been able to rebut the Singh Report's infringement accusations with respect to the Accused Products at the level of specificity they were addressed by the Singh Report. In the event Apple supplements the Singh Report to analyze any Accused Product in further detail, I reserve the right to amend this Report accordingly.

3. Apple's Alleged Practice Of The '163 Patent

- 232. Section IV.B of the Singh Report offers opinions that each of the "iPhone 4S, iPhone 4, iPhone 3GS, iPhone 3G, iPhone, iPad2, and iPad" "practice the asserted apparatus and system claims of the '163 patent, and their ordinary and intended use practices the asserted method claims of the '163 patent." Singh Report ¶ 33, 34. I have been asked to consider this opinion, and whether it correctly concludes that the Apple products practice the asserted claims of the '163 Patent.
- 233. I would note that these conclusions appear to be based on an examination of the behavior of a single product (iPhone 4) viewing a single webpage (the *New York Times* homepage). Singh Report ¶ 33. Further, the Singh Report discussion regarding the behavior of this single product appears to discuss *only* the functionalities associated with Claim 2 of the '163 Patent. *Id*.

235. It is therefore my opinion that the Singh Report has failed to make even a threshold showing that the iPhone 4S, iPhone 3GS, iPhone 3G, iPad 2, and iPad practice *any* claims of the '163 Patent. Further, The Singh Report has failed to make even a threshold showing that the iPhone 4 practices any claims other than Claim 2 of the '163 Patent.

4. Apple's Priority Date For The '163 Patent

236. As discussed in my opening report, it is my understanding that the documentary evidence offered by Apple does not support a conception date for the '163 Patent "in or before" March 2006. Nothing in Section IV.C of the Singh Report changes this understanding. I would note that the opinion in the Singh Report that "it appears that the claims of the '163 Patent . . . were conceived of . . . in or before March 2006," is based largely on a historical narrative that is identical to an interrogatory response previously submitted by counsel for Apple. Singh Report ¶ 37.

B. Claim-by-Claim Non-Infringement Analysis and Basis for My Opinion

1. '163 Patent, Claim 2 Preamble

- 237. '163 Patent, Claim 2 preamble recites:
 - 2. A computer-implemented method, comprising;
- 238. It is unclear whether the Singh Report views the Preamble as limiting. I understand that the Preamble is not limiting in this claim. In the event the Court construes the preamble as limiting, I reserve the right to supplement this Report accordinly.

2. '163 Patent, Claim 2[a]

239. '163 Patent, Claim 2[a] recites:

at a portable electronic device with a touch screen display;

240. For all but two of the Accused Products, the Singh Report provides no support for the accusation of infringement of this element of Claim 2. Rather, the Singh Report makes the following conclusory infringement assertion:

Each of the other Samsung Accused Products is also a portable electronic device with a touch screen display. Therefore, the ordinary and intended use of the Samsung Accused Products infringes this element of claim 2.

Singh Report ¶ 53.

241. As noted above, the Singh Report only offers support for the Galaxy S II and Galaxy Tab 10.1. Should Apple offer new evidence that supports the Singh Report assertions regarding Samsung's other Accused Products, I reserve the right to supplement my Report.

242. For at least these reasons, the Accused Products do not infringe Claim element 2[a] of the '163 Patent, either literally or under the doctrine of equivalents.

3. '163 Patent, Claim 2[b]

- 243. '163 Patent, Claim 2[b] recites:

 displaying at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content;
- 244. It is my opinion that the Singh Report does not establish that the Accused Products display a "structured electronic document" comprising a "plurality of boxes of content." Exhibits 4 and 5 in support of the Singh Report depict websites, but I note that "boxes" have been superimposed in order to give the appearance that the website itself groups content into visually distinct square or rectangular regions.
- 245. I have operated both the Galaxy S II and Galaxy Tab 10.1 devices viewing a single webpage (the *New York Times* homepage). There are no clearly delineated "plurality of boxes of content" displayed for the "structured electronic document." In fact, the websites depicted in the Singh Report contain no visual cues that alert the user that certain regions are grouped together into a visually distinct "boxes of content." From the perspective of a user, the websites cited in the Singh Report, as displayed on the Accused Products, generally contain unbounded groupings of text or graphics.



246. For at least these reasons, the Accused Products do not infringe Claim element 2[b] of the '163 Patent, either literally or under the doctrine of equivalents.

4. '163 Patent, Claim 2[d]

- 247. '163 Patent, Claim 2[d] recites:

 determining a first box in the plurality of boxes at the location of the first gesture;
- 248. It is my opinion that the Singh Report also fails to establish that the Accused Products practice the limitation "determining a first box in the plurality of boxes at the location of the first gesture." As I read this claim limitation, the entire phrase "in the plurality of boxes at the location of the first gesture" modifies the reference to a "first box." Therefore, to meet this limitation, the Accused Products must be capable of determining a single box, out of a plurality of boxes (e.g., nested boxes) that each correspond to the location of the first gesture.
- 249. My reading of this Claim limitation is bolstered by the way the drafters of the '163 Patent drafted the limitation corresponding to the second gesture. There, the Patent requires "detecting a second gesture on a second box other than the first box." Thus, in my opinion, where the drafters intended to cover a "detecting" of a *single* box corresponding to the location of a gesture, they phrased the limitation in terms of the "second gesture" of the '163 Patent. By contrast, when the drafters intended a "determining" of a single box out of *multiple* boxes corresponding to a location of a gesture, they phrased the claim limitation in terms of the "first gesture" of the '163 Patent.
- 250. The Singh report does not identify what the Accused Products do, if anything, to determine a first box in a plurality of boxes content. None of Exhibits 4, 5, 10, 11, 12, or 13 show a plurality of boxes at the location of the first gesture. In each exhibit, the location of the first gesture corresponds to merely a *single* box. Further, my use of the Galaxy S II and Galaxy Tab 10.1 devices shows that the determination of a "first box" among a "plurality of boxes of content" is not performed. From my use of the devices, it appears that a given gesture at a particular location corresponds to merely a single box. There is no indication that the software does anything to determine a first box *from* a plurality of boxes.

- 251. Additionally, from my use of the Galaxy S II and Galaxy Tab 10.1, I have noticed that at least some portion of the area depicted within the superimposed boundaries of the Singh Report do not behave as if they were part of the "box" of content. For instance, with respect to the "boxes" relating to a news article, the Singh Report boundaries are drawn such that the article headline is included within. However, when I perform a gesture directly on the article headline, the device does not perform the subsequent enlarging and translating steps I would expect if the headline were, in fact, part of the "box" of content. Instead, in such cases, an entirely new web page is rendered on the touch-screen display. This observation further confirms the flaws in how the Singh Report defines a "box" of content with superimposed, arbitrary boundaries.
- 252. For at least these reasons, the Accused Products do not infringe Claim element 2[d] of the '163 Patent, either literally or under the doctrine of equivalents.

5. '163 Patent, Claim 2[e]

- 253. '163 Patent, Claim 2[e] recites:

 enlarging and translating the structured electronic document so that the
 first box is substantially centered on the touch screen display;
- 254. In my opening report, I opined that the term "substantially centered" was indefinite because it would not reasonably apprise persons ordinarily skilled in the art as to the degree and type of centering required.
- 255. For the purposes of my invalidity report and to the extent the Court does not find the term "substantially centered" indefinite, I assumed that "substantially centered" meant "centered" in at least one direction. Of the 4 devices depicted in video exhibits attached in the Singh Report, I note that at least one device (the Vibrant as shown in Exhibit 13), does not even meet this requirement with respect to the first box upon the user's first gesture.
- 256. Alternatively, because I have always maintained that the term "substantially centered" is indefinite and open to multiple, interpretations, I would further note that to the extent the Court adopts a construction of "substantially centered" that requires centering in both the horizontal and vertical directions, two additional devices fail to meet this limitation. The Galaxy Tab 10.1 (as shown in

Exhibits 4 and 12) and the Galaxy S Showcase (as shown in Exhibit 14) do not meet this limitation as they show the first box being centered in only the horizontal dimension:

- Exhibit 4 (Galaxy Tab 10.1, claim chart) first gesture may appear to result in only horizontal centering (although, it is difficult to tell because the top of the photograph is cut-off to give the appearance that the first box might be vertically centered);
- Exhibit 5 (Galaxy S II, claim chart) first gesture may appear to result in both horizontal and vertical centering (but, centering in both directions appears to be due to the fortuity that the box was initially centered in both dimensions prior to the first gesture);
- Exhibit 11 (Galaxy S II, video) first gesture may result in horizontal and vertical
 centering (but, centering in both directions appears to be due to the fortuity that the box
 was initially centered in both dimensions prior to the first gesture);
- Exhibit 12 (Tab 10.1, video) first gesture may result in only horizontal centering of the first box;
- Exhibit 13 (Vibrant, video) first gesture does not result in centering of the first box in either dimension;
- Exhibit 14 (Galaxy S Showcase, video) first gesture may result in only horizontal centering (in fact, first box goes from being slightly higher than center to slightly lower than center) of the first box.
- 257. To the extent "substantially centered" is found to be an indefinite term, the Singh Report has not and cannot establish that the Accused Products substantially center the first box.
- 258. For at least these reasons, the Accused Products do not infringe Claim element 2[e] of the '163 Patent, either literally or under the doctrine of equivalents.

6. '163 Patent Claim 2[f]

259. '163 Patent Claim 2[f] recites:

while the first box is enlarged, detecting a second gesture on a second box other than the first box;

- 260. I incorporate by reference in its entirety my explanation and opinions directed to non-infringement of Claim element 2[b] of the '163 Patent above.
- 261. For at least these reasons, the Accused Products do not infringe Claim element 2[f] of the '163 Patent, either literally or under the doctrine of equivalents.

7. '163 Patent Claim 2[g]

- 262. '163 Patent Claim 2[g] recites:

 and in response to detecting the second gesture, translat[ing] the structured electronic document so that the second box is substantially centered on the touch screen display.
- 263. I incorporate by reference in its entirety my explanation and opinions directed to non-infringement of Claim element 2[e] of the '163 Patent above.
- 264. Again, many of the Singh Report exhibits do not show the structured electronic document "translat[ing] so that the second box is substantially centered on the touch screen display." Each exhibit offered in the Singh Report appears to show the structured electronic document translating in *only* the horizontal dimension in response to a second gesture. Therefore, in the vast majority of circumstances, the second box is at least vertically offset from center after the second gesture:
 - Exhibit 4 (Galaxy Tab 10.1, claim chart) unclear whether second gesture results in vertical centering because the top of the photograph is cut-off (but, translation appears to have taken place in only the horizontal dimension, so if the second box is vertically centered, it is only due to the fortuity that the first box was vertically offset from center and the user selected a second box that happened to be vertically centered prior to the second gesture);
 - Exhibit 5 (Galaxy S II, claim chart) second gesture may appear to result in horizontal and vertical centering (but, translation appears to have been required in only in the horizontal direction as the second box was vertically aligned with the first box prior to the second gesture);

1	•	Exhibit 11 (Galaxy S II) - second gesture may result in horizontal and vertical centering					
2	(but, translation was required in only the horizontal direction as the second box was						
3		vertically aligned with the first box prior to the second gesture);					
4	•	Exhibit 12 (Tab 10.1) - second gesture may result in only horizontal centering					
5		(translation occurs only in the horizontal dimension);					
6	•	Exhibit 13 (Vibrant) - second gesture may result in only horizontal centering (translation					
7		occurs only in the horizontal dimension);					
8	•	Exhibit 14 (Showcase) - second gesture may result in only horizontal centering					
9		(translation occurs only in the horizontal dimension).					
10	265.	To the extent "substantially centered" is found to be an indefinite term, the Singh Report					
11	has not and cannot establish that the Accused Products substantially center the second box.						
12	266.	266. For at least these reasons, the Accused Products do not infringe Claim element 2[g] of the					
13	'163 Patent, ei	ither literally or under the doctrine of equivalents.					
14		8. '163 Patent, Claim 4					
15	267.	'163 Patent, Claim 4 recites:					
16		method of claim 2 wherein the structured electronic document is a web					
17		page.					
18	268.	Claim 4 depends on Claim 2. For the reasons previously stated, the Accused Products do					
19	not infringe C	laim 2 and, therefore, do not infringe Claim 4.					
20	269.	For at least these reasons, the Accused Products do not infringe Claim 4 of the '163					
21	Patent, either	literally or under the doctrine of equivalents.					
22		9. '163 Patent, Claim 5					
23	270.	'163 Patent, Claim 5 recites:					
24		method of claim 2 wherein the structured electronic document is an HTML					
25		or XML document.					

28

26

27

271.

not infringe Claim 2 and, therefore, do not infringe Claim 5.

Claim 5 depends on Claim 2. For the reasons previously stated, the Accused Products do

1	272.	For at least these reasons, the Accused Products do not infringe Claim 5 of the '163			
2	Patent, either literally or under the doctrine of equivalents.				
3		10. '163 Patent, Claim 6			
4	273.	'163 Patent, Claim 6 recites:			
5		method of claim 2 wherein [a] the structured electronic document has a			
6		document width and a document length; [b] the touch screen display has a			
7		display width; and [c] displaying at least a portion of the structured			
8		electronic document comprises scaling the document width to fit within the			
9		display width independent of the document length.			
10	274.	The Singh Report states			
11		on the Galaxy Tab 10.1,			
12					
13		and the second of the second o			
14		and provide the state of the st			
15					
16		width.			
17	Singh Report	at ¶ 108.			
18	275.	I disagree with the Singh Report's interpretation of Claim 6 as well as its interpretation of			
19	the way in wh	nich the Samsung source code operates.			
20	276.	An electronic document, prior to being rendered on a touch screen display, has no			
21	inherent widtl	n that can be used as an independent variable in determining a scale factor. As used by the			
22	'163 Patent, th	ne "document width" can only refer to a characteristic of the structured electronic document			
23	when rendere	d by the portable electronic device browser and displayed on the touch screen display. In			
24	other words,	a document only has a "width" at a particular zoom level. The code routines cited by the			
25	Singh Report	in ¶ 99 verify this.			
26					

28

	J1	
1	277.	Therefore, the Singh Report is incorrect when it states the
2) h	•
3		
4		
	•	
6	278.	My analysis of the scaling operation in the Accused Products is bolstered by the
7		e
8	,	
9	†	
10		
11	279.	It is my opinion that the Samsung devices do not meet claim limitation 6[a] because the
12	document has	s no "width" prior to the scaling operation that takes place at step 6[c]. The Singh Report
13	fails to establ	ish infringement of Claim 6 because the scale of a document is not calculated as a function
14	of document	width.
15	280.	Additionally, Claim 6 depends on Claim 2. For the reasons previously stated, the
16	Accused Prod	lucts do not infringe Claim 2 and, therefore, do not infringe Claim 6.
17	281.	For at least these reasons, the Accused Products do not infringe Claim 6 of the '163
18	Patent, either	literally or under the doctrine of equivalents.
19		11. '163 Patent, Claim 7
20	282.	'163 Patent, Claim 7 recites:
21		method of claim 6 wherein the touch screen display is rectangular with a
22		short axis and a long axis; the display width corresponds to the short axis
23		when the structured electronic document is seen in portrait view; and the
24		display width corresponds to the long axis when the structured electronic
25		document is seen in landscape view.
26	283.	Claim 7 depends on Claims 2 and 6. For the reasons previously stated, the Accused
27	Products do n	ot infringe Claims 2 or 6 and, therefore, do not infringe Claim 7.
28		

284	. For at	least these reasons, the Accused Products do not infringe Claim 7 of the '163		
Patent, either literally or under the doctrine of equivalents.				
	12.	'163 Patent, Claim 8		
285	5. '163 P	atent, Claim 8 recites:		
	metho	d of claim 2 wherein the plurality of boxes are defined by a style		
	sheet l	anguage.		
286	5. The S	ingh Report fails to establish that the Accused Products practice the method of		
Claim 2 wl	herein the	plurality of boxes are defined by a style sheet language. Although the Singh Report		
cites to the	e HTML o	code of the New York Times website at Exhibit 10, there is no indication in the		
Report who	ere or how	the cited HTML uses style sheets to define the plurality of boxes. It is my opinion		
that the Re	port's cond	clusory statement fails to even make a threshold showing that the Accused Products		
practice Cl	aim 8.			
287	'. Additi	. Additionally, Claim 8 depends on Claim 2. For the reasons previously stated, the		
Accused Pa	Products do not infringe Claim 2 and, therefore, do not infringe Claim 8.			
288	. For at	For at least these reasons, the Accused Products do not infringe Claim 8 of the '163		
Patent, eith	er literally	or under the doctrine of equivalents.		
	13.	'163 Patent, Claim 9		
289	. '163 P	atent, Claim 9 recites:		
	metho	d of claim 8 wherein the style sheet language is a cascading style		
	sheet l	anguage.		
290	. Claim	9 depends on Claims 2 and 8. For the reasons previously stated, the Accused		
Products do	o not infrir	age Claims 2 or 8 and, therefore, do not infringe Claim 9.		
291	. For at	least these reasons, the Accused Products do not infringe Claim 9 of the '163		
Patent, eith	er literally	or under the doctrine of equivalents.		
	14.	'163 Patent, Claim 10		
292	. '163 P	atent, Claim 10 recites:		

method of claim 2 wherein the first gesture is a finger gesture.

1	293.	Claim 10 depends on Claim 2. For the reasons previously stated, the Accused Products				
2	do not infringe Claim 2 and, therefore, do not infringe Claim 10.					
3	294. For at least these reasons, the Accused Products do not infringe Claim 10 of the '163					
4	Patent, either literally or under the doctrine of equivalents.					
5		15. '163 Patent, Claim 11				
6	295.	'163 Patent, Claim 11 recites:				
7		method of claim 2 wherein the first gesture is a stylus gesture.				
8	296.	The Singh Report does not opine on this claim. It is my assumption that the Singh Report				
9	offers no opi	nion on Claim 11 because the Accused Products do not practice the method of Claim 2				
10	wherein the first gesture is a stylus gesture. I agree. In the event that Apple supplements the Singh					
11	Report to include an analysis of Claim 11, I reserve the right to supplement this rebuttal report					
12	accordingly.					
13	297.	297. For at least these reasons, the Accused Products do not infringe Claim 11 of the '163				
14	Patent, either literally or under the doctrine of equivalents.					
15		16. '163 Patent, Claim 12				
16	298.	'163 Patent, Claim 12 recites:				
17		method of claim 2 wherein the first gesture is a tap gesture.				
18	299.	Claim 12 depends on Claim 2. For the reasons previously stated, the Accused Products				
19	do not infringe Claim 2 and, therefore, do not infringe Claim 12.					
20	300. For at least these reasons, the Accused Products do not infringe Claim 12 of the '163					
21	Patent, either	literally or under the doctrine of equivalents.				
22		17. '163 Patent, Claim 13				
23	301.	'163 Patent, Claim 13 recites:				
24		method of claim 12 wherein the first gesture is a double tap with a single				
25		finger, a double tap with two fingers, a single tap with a single finger, or a				
26		single tap with two fingers.				

1	302.	Claim 13 depends on Claim 2. For the reasons previously stated, the Accused Products			
2	do not infringe Claim 2 and, therefore, do not infringe Claim 13.				
3	303.	303. For at least these reasons, the Accused Products do not infringe Claim 13 of the '163			
4	Patent, either	literally or under the doctrine of equivalents.			
5		18. '163 Patent, Claim 17			
6	304.	'163 Patent, Claim 17 recites:			
7		method of claim 2 wherein enlarging and translating the structured			
8		electronic document comprises displaying at least a portion of the second			
9		box of the plurality of boxes of content on the touch screen display.			
10	305.	Claim 17 depends on Claim 2. For the reasons previously stated, the Accused Products			
11	do not infringe Claim 2 and, therefore, do not infringe Claim 17.				
12	306.	For at least these reasons, the Accused Products do not infringe Claim 17 of the '163			
13	Patent, either	literally or under the doctrine of equivalents.			
14		19. '163 Patent, Claim 18			
15	307.	'163 Patent, Claim 18 recites:			
16		method of claim 2 wherein enlarging comprises expanding the first box so			
17		that the width of the first box is substantially the same as the width of the			
18		touch screen display.			
19	308.	In my invalidity report, I opined that the term "substantially the same" was indefinite			
20	because it doe	es not appraise persons ordinarily skilled in the art as to how closely the width of the first			
21	box must app	roach the width of the touch-screen display to fall within the scope of the claim. Exhibits			
22	11 and 14 of	the Singh Report (demonstrating the behavior of the Galaxy S II and the Galaxy S			
23	Showcase, res	pectively) are illustrative. Both exhibits show a method wherein the first box is enlarged			
1					

28

25

26

27

the same is indefinite.

24 | such that some portions of other boxes are still visible within the display width. It is unclear to me

whether this space - between the edges of the first box and the edge of the touch screen display -

preclude the devices from practicing the claim limitation of Claim 18 because the term "substantially"

- 309. As for Exhibit 12 (demonstrating the behavior of the Galaxy Tab 10.1), this exhibit does not demonstrate an enlarging of the first box such that its width is "substantially" the same as the width of the touch-screen display. In Exhibit 12, the width of the enlarged first box appears to occupy, at most, one-third the width of the touch-screen display. In fact, the Singh Report actually appears to concede that the Galaxy Tab 10.1 does not literally infringe Claim 18 of the '163 Patent. See Singh Report at ¶ 148 ("I believe that all of the Samsung Accused Products, with the exception of the Galaxy Tab 10.1, similarly expand the first box . . . so that it is substantially the same width as the touch screen display) (emphasis added).
- 310. Similarly, the Samsung Vibrant, as demonstrated in Exhibit 13, does not enlarge the first box such that its width is "substantially" the same as the width of the touch-screen display. In Exhibit 13, the width of the enlarged first box appears to occupy, at most, the right-most half of the width of the touch-screen display.
- 311. I further disagree with the Singh Report that failure of the Galaxy Tab 10.1 and the Vibrant to expand the first box such that width is "substantially" the same as the width of the touch-screen display is an "insubstantial[]" difference from the recited claim language. "Scaling" or "fitting" content to the width of the touch-screen display is an important, non-trivial step in the method of Claim 18. As evidenced by Claim 6, even the drafters of the '163 Patent itself envisioned that filling content width to the width of the touch-screen display is an important feature. Furthermore, this "fitting" content to the width of the display is the only limitation that separates Claim 18 from Claim 2. I therefore disagree that any device that does not expand the first box to the degree specified by the literal language of Claim 18 can nonetheless infringe under the doctrine of equivalents. A lesser degree of enlarging is a different function, performed in a different manner, that achieves a different result.
- 312. Additionally, Claim 18 depends on Claim 2. For the reasons previously stated, the Accused Products do not infringe Claim 2 and, therefore, do not infringe Claim 18.
- 313. For at least these reasons, the Accused Products do not infringe Claim 18 of the '163 Patent, either literally or under the doctrine of equivalents.

20. '163 Patent, Claim 27

314.	'163 Patent, Claim 27 recites:					
	method of claim 2 including detecting a third gesture on the enlarged					
	second box; and in response to detecting the third gesture reducing in size					
	the displayed portion of the structured electronic document.					

- 315. The Singh Report appears to concede that at least one device, the Galaxy S II Epic 4G Touch does not literally practice the method of Claim 27. See Singh Report at ¶ 154 I disagree with the Singh Report's conclusion that the Epic 4G Touch practices a method that is "insubstantially different" from the method of Claim 27. Singh Report ¶ 155. Reducing in size the displayed portion of the structured electronic document in response to a third gesture is an important feature, and the only limitation that separates Claim 27 from Claim 2. The Epic 4G Touch does not infringe the method of Claim 27 under the doctrine of equivalents because it performs a substantially different function, in a substantially different manner, to achieve a substantially different result.
- 316. Additionally, Claim 27 depends on Claim 2. For the reasons previously stated, the Accused Products do not infringe Claim 2 and, therefore, do not infringe Claim 27.
- 317. For at least these reasons, the Accused Products do not infringe Claim 27 of the '163 Patent, either literally or under the doctrine of equivalents.

21. '163 Patent, Claim 28

- 318. '163 Patent, Claim 28 recites:

 method of claim 27 wherein the first box returns to its size prior to being enlarged.
- 319. Claim 28 depends on Claims 2 and 27. For the reasons previously stated, the Accused Products do not infringe Claim 2 or 27 and, therefore, do not infringe Claim 28.
- 320. For at least these reasons, the Accused Products do not infringe Claim 28 of the '163 Patent, either literally or under the doctrine of equivalents.

22. '163 Patent, Claim 29

321. '163 Patent, Claim 29 recites:

1		method of claim 27 wherein the third gesture and the first gesture are the			
2		same type of gesture.			
3	322. Claim 29 depends on Claims 2 and 27. For the reasons previously stated, the Accus				
4	Products do	ot infringe Claims 2 or 27 and, therefore, do not infringe Claim 29.			
5	323.	For at least these reasons, the Accused Products do not infringe Claim 29 of the '163			
6	Patent, either	iterally or under the doctrine of equivalents.			
7		23. '163 Patent, Claim 30			
8	324.	'163 Patent, Claim 30 recites:			
9		method of claim 27 wherein the third gesture is a finger gesture.			
10	325.	Claim 30 depends on Claims 2 and 27. For the reasons previously stated, the Accused			
11	Products do 1	t infringe Claims 2 or 27 and, therefore, do not infringe Claim 30.			
12	326.	For at least these reasons, the Accused Products do not infringe Claim 30 of the '163			
13	Patent, either	iterally or under the doctrine of equivalents.			
14		24. '163 Patent, Claim 31			
15	327.	'163 Patent, Claim 31 recites:			
16		method of claim 27 wherein the third gesture is a stylus gesture.			
17	328.	The Singh Report does not opine on this claim. It is my assumption that the Singh Report			
18	offers no opi	ion on Claim 31 because the Accused Products do not practice the method of Claim 27			
19	wherein the t	ard gesture is a stylus gesture. I agree. In the event Apple supplements the Singh Report			
20	to include an	nalysis of Claim 31, I reserve the right to supplement this rebuttal report accordingly.			
21	329.	For at least these reasons, the Accused Products do not infringe Claim 31 of the '163			
22	Patent, either	terally or under the doctrine of equivalents.			
23		25. '163 Patent, Claim 32			
24	330.	'163 Patent, Claim 32 recites:			
25		method of claim 27 wherein the third gesture is a tap gesture.			
26	331.	Claim 32 depends on Claims 2 and 27. For the reasons previously stated, the Accused			

27

Products do not infringe Claims 2 or 27 and, therefore, do not infringe Claim 32.

332. For at least these reasons, the Accused Products do not infringe Claim 32 of the '163 Patent, either literally or under the doctrine of equivalents.

26. '163 Patent, Claim 33

- 333. '163 Patent, Claim 33 recites:

 method of claim 32 wherein the third gesture is a double tap with a single
 finger, a double tap with two fingers, a single tap with a single finger, or a
 single tap with two fingers.
- 334. Claim 30 depends on Claims 2, 27, and 32. For the reasons previously stated, the Accused Products do not infringe Claims 2, 27, or 32 and, therefore, do not infringe Claim 33.
- 335. For at least these reasons, the Accused Products do not infringe Claim 33 of the '163 Patent, either literally or under the doctrine of equivalents.

27. '163 Patent, Claim 34

- 336. '163 Patent, Claim 34 recites:

 method of claim 2 wherein the second gesture and the first gesture are the same type of gesture.
- 337. In each of the Accused Products, the first gesture that causes the enlarging and translating step of Claim 2 is a double tap. The second gesture that causes the document to translate to substantially center a second box is a single tap. The Singh Report glosses over this difference by opining simply that "both the first gesture and the second gesture are finger gestures." Singh Report ¶ 177. But this does not mean they are the "same" finger gestures.
- 338. As evidenced by Claims 13, 33, and 38, the drafters of the '163 Patent itself recognized that there is indeed a difference between a "single tap" and a "double tap" gesture. Further, the fact that the drafters included claims covering "tap" gestures as distinct from "finger" gestures demonstrates that not all "finger" gestures are necessarily the same type of gesture. Finally, in the analysis of Claim 29, the Singh Report cites the fact that the first and third gestures of the Accused Products are both double taps and there is therefore an "identity" between the gestures. Singh Report ¶ 165. Even the Singh Report therefore recognizes that both gestures must be double taps to be the "same" gesture.

1	339.	There	efore, the Singh Report opinion that the first and second gestures are both "finger"		
2	gestures does not establish that the devices practice Claim 34. Because the first and second gestures on				
3	the Accused Products are different "finger" gestures, it is my opinion that Claim 34 is not literally				
4	infringed.				
5	340.	Addit	cionally, Claim 34 depends on Claim 2. For the reasons previously stated, the		
6	Accused Prod	lucts do	o not infringe Claim 2 and, therefore, do not infringe Claim 34.		
7	341.	For a	t least these reasons, the Accused Products do not infringe Claim 34 of the '163		
8	Patent, either	literall	y or under the doctrine of equivalents.		
9		28.	'163 Patent, Claim 35		
10	342.	'163 F	Patent, Claim 35 recites:		
11		metho	od of claim 2 wherein the second gesture is a finger gesture.		
12	343.	Claim	35 depends on Claim 2. For the reasons previously stated, the Accused Products		
13	do not infringe Claim 2 and, therefore, do not infringe Claim 35.				
14	344.	For a	t least these reasons, the Accused Products do not infringe Claim 35 of the '163		
15	Patent, either	literall	y or under the doctrine of equivalents.		
16		29.	'163 Patent, Claim 36		
17	345.	'163 F	Patent, Claim 36 recites:		
18		metho	ed of claim 2 wherein the second gesture is a stylus gesture.		
19	346.	The S	ingh Report does not opine on this claim. It is my assumption that the Singh Report		
20	did not offer an opinion on Claim 36 because the Accused Products do not practice the method of Claim				
21	2 wherein the third gesture is a stylus gesture. I agree. In the event Apple supplements the Singh Report				
22	to include an	analysi	s of Claim 36, I reserve the right to supplement this rebuttal report accordingly.		
23	347.	For at	t least these reasons, the Accused Products do not infringe Claim 36 of the '163		
24	Patent, either	literally	y or under the doctrine of equivalents.		
25		30.	'163 Patent, Claim 37		
26	348.	'163 P	atent, Claim 37 recites:		

method of claim 2 wherein the second gesture is a tap gesture.

1	349.	Claim 37 depends on Claim 2. For the reasons previously stated, the Accused Products			
2	do not infringe Claim 2 and, therefore, do not infringe Claim 37.				
3	350.). For at least these reasons, the Accused Products do not infringe Claim 37 of the '163			
4	Patent, either literally or under the doctrine of equivalents.				
5		31. '163 Patent, Claim 38			
6	351.	'163 Patent, Claim 38 recites:			
7		method of claim 2 wherein the second gesture is a double tap with a single			
8		finger, a double tap with two fingers, a single tap with a single finger, or a			
9		single tap with two fingers.			
10	352.	Claim 38 depends on Claim 2. For the reasons previously stated, the Accused Products			
11	do not infringe Claim 2 and, therefore, do not infringe Claim 38.				
12	353.	For at least these reasons, the Accused Products do not infringe Claim 38 of the '163			
13	Patent, either literally or under the doctrine of equivalents.				
14		32. '163 Patent, Claim 39			
15	354.	'163 Patent, Claim 39 recites:			
16		method of claim 2 including detecting a swipe gesture on the touch screen			
17		display; and in response to detecting the swipe gesture, translating the			
18	displayed portion of the structured electronic document on the touch				
19		screen display.			
20	355.	Claim 39 depends on Claim 2. For the reasons previously stated, the Accused Products			
21	do not infring	e Claim 2 and, therefore, do not infringe Claim 39.			
22	356.	For at least these reasons, the Accused Products do not infringe Claim 39 of the '163			
23	Patent, either	literally or under the doctrine of equivalents.			
24		33. '163 Patent, Claim 40			
25	357.	'163 Patent, Claim 40 recites:			

2728

- 1						
1		metho	d of claim 39 wherein translating comprises vertical, horizontal, or			
2	diagonal movement of the structured electronic document on the touch					
3		screen display.				
4	358.	Claim	40 depends on Claims 2 and 39. For the reasons previously stated, the Accused			
5	Products do n	ot infri	nge Claims 2 or 39 and, therefore, do not infringe Claim 40.			
6	359.	For at	least these reasons, the Accused Products do not infringe Claim 40 of the '163			
7	Patent, either	literally	or under the doctrine of equivalents.			
8		34.	'163 Patent, Claim 41			
9	360.	'163 P	atent, Claim 41 recites:			
10		metho	d of claim 39 wherein the swipe gesture is a finger gesture.			
11	361.	Claim	41 depends on Claims 2 and 39. For the reasons previously stated, the Accused			
12	Products do not infringe Claims 2 or 39 and, therefore, do not infringe Claim 41.					
13	362.	For at	least these reasons, the Accused Products do not infringe Claim 41 of the '163			
14	Patent, either literally or under the doctrine of equivalents.					
15		35.	'163 Patent, Claim 42			
16	363.	'163 P	atent, Claim 42 recites:			
17		metho	d of claim 39 wherein the swipe gesture is a stylus gesture.			
18	364.	The Si	ngh Report does not opine on this claim. It is my assumption that the Singh Report			
19	did not opine	on Clai	m 42 because he believes that the Accused Products do not practice the method of			
20	Claim 39 wherein the third gesture is a stylus gesture. I agree. In the event Apple supplements the					
21	Singh Report	include	e an analysis of Claim 42, I reserve the right to supplement this rebuttal report			
22	accordingly.					
23	365.	For at	least these reasons, the Accused Products do not infringe Claim 42 of the '163			
24	Patent, either	literally	or under the doctrine of equivalents.			
25		36.	'163 Patent, Claim 47			
26	366.	'163 P	atent, Claim 47 recites:			

27

method of claim 2 including detecting a change in orientation of the device, in response to detecting a change in orientation of the device, rotating the displayed portion of the structured electronic document on the touch screen display by 90 degrees.

367. The claim limitation states that the "displayed portion" of the structured electronic document is rotated by 90 degrees. However, in each of the exhibits cited by the Singh report, when the portable electronic device is rotated 90 degrees from a "portrait-view" orientation to a "landscape-view" orientation, the entire "displayed portion" of the structured electronic document is *not* rotated 90 degrees. Instead, the document is rescaled, and part of the previously "displayed portion" of the document is cut-off:





- 368. Similarly, when the device is rotated from a "landscape-view" orientation to a "portrait-view" orientation, it is not the previously "displayed portion" of the structured electronic document that is rotated by 90 degrees; rather it is a scaled-down version of the previously "displayed portion" of the document that is rotated by 90 degrees.
- 369. Additionally, Claim 47 depends on Claim 2. For the reasons previously stated, the Accused Products do not infringe Claim 2 and, therefore, do not infringe Claim 47.
- 370. For at least these reasons, the Accused Products do not infringe Claim 47 of the '163 Patent, either literally or under the doctrine of equivalents.

37. '163 Patent, Claim 48

371. '163 Patent, Claim 48 recites:

method of claim 2 including detecting a multi-finger de-pinch gesture on the touch screen display, in response to detecting the multi-finger de-pinch gesture, enlarging a portion of the displayed portion of the structured electronic document on the touch screen display in accordance with a position of the multi-finger de-pinch gesture and an amount of finger movement in the multi-finger de-pinch gesture.

- 372. Claim 48 depends on Claim 2. For the reasons previously stated, the Accused Products do not infringe Claim 2 and, therefore, do not infringe Claim 48.
- 373. For at least these reasons, the Accused Products do not infringe Claim 48 of the '163 Patent, either literally or under the doctrine of equivalents.

38. '163 Patent, Claim 49

374. '163 Patent, Claim 49 recites:

A graphical user interface on a portable electronic device with a touch screen display, comprising: [a] at least a portion of a structured electronic document, wherein the structured electronic document comprises a plurality of boxes of content; wherein: [b] in response to detecting a first gesture at a location on the portion of the structured electronic document: a first box in the plurality of boxes at the location of the first gesture is determined; [c] the structured electronic document is enlarged and translated so that the first box is substantially centered on the touch screen display; [d] while the first box is enlarged, a second gesture is detected on a second box other than the first box; and [e] in response to detecting the second gesture, the structured electronic document is translated so that the second box is substantially centered on the touch screen display.

375. Claim 49 generally tracks the language of Claim 2. I incorporate by reference in its entirety my explanations and opinions directed to non-infringement of Claim 2 of the '163 Patent above.

- 376. Just as the Accused Products do not meet the claim limitations set forth in Claim elements 2[b], 2[d]-[g], they do not meet the claim limitations set forth in claim elements 49[a]-[e]. It is my opinion that the Accused Products therefore do not infringe claim 49.
- 377. Furthermore, Claim 49 covers a "graphical user interface on a portable electronic device with a touch screen display, *comprising*: at least a portion of a structured electronic document " (Emphasis added). In analyzing Claim 49, the Singh Report omits the "comprising" portion of the claim limitation, merely opining that the claim limitation of subpart [a] is met because "[t]his is the same limitation present in element [b] of claim 2." Singh Report ¶ 221. This is not true. Element [b] of Claim 2 covers a *method* of "*displaying* at least a portion of a structured electronic document . . . " (Emphasis added). Element [a] of Claim 49 covers a graphical user interface *system* "*comprising* at least a portion of a structured electronic document." (Emphasis added).
- 378. It is my opinion that to read on Claim 49, the browser application of a portable electronic device (*i.e.*, the graphical user interface) must "comprise" or embody a structured electronic document such as a web page. The Singh Report offers no opinion as to whether the Accused Products "comprise" a structured electronic document.
- 379. For at least these reasons, the Accused Products do not infringe Claim 49 of the '163 Patent, either literally or under the doctrine of equivalents.

39. '163 Patent, Claim 50

380. '163 Patent, Claim 50 recites:

A portable electronic device, comprising: [a] a touch screen display; [b] one or more processors; [c] memory; and [d] one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including: [e] instructions for displaying at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content; [f] instructions for detecting a first gesture at a location on the displayed

portion of the structured electronic document; [g] instructions for determining a first box in the plurality of boxes at the location of the first gesture; [h] instructions for enlarging and translating the structured electronic document so that the first box is substantially centered on the touch screen display; [i] instruction for, while the first box is enlarged, a second gesture is detected on a second box other than the first box; and [j] instructions for, in response to detecting the second gesture, the structured electronic document is translated so that the second box is substantially centered on the touch screen display.

- 381. Claim 50 generally tracks the language of Claim 2. I incorporate by reference in its entirety my explanations and opinions directed to non-infringement of Claim 2 of the '163 Patent above.
- 382. Just as the Accused Products do not meet the claim limitations set forth in Claim elements 2[b], 2[d]-[g], they do not meet the claim limitations set forth in Claim elements 50[e], 50[f]-[j]. It is my opinion that the Accused Products therefore do not infringe Claim 50.
- 383. Furthermore, as discussed in my opening invalidity report, it is impossible to tell whether the algorithms embodied in the Accused Products infringe Claim 50 because this claim provides no guidance as to what particular "instructions" are used by the "portable electronic device." Without guidance (either in the claim or in the Patent specification) as to the nature of the these "instructions" one ordinarily skilled in the art would be unable to assess the scope of this claim. As stated in my invalidity report, Claim 50 is indefinite for a failure to disclose sufficient corresponding structure to apprise a person of ordinary skill as to what "instructions" or "algorithms" are being claimed.
- 384. For at least these reasons, the Accused Products do not infringe Claim 50 of the '163 Patent, either literally or under the doctrine of equivalents.

40. '163 Patent, Claim 51

385. '163 Patent, Claim 51 recites:

A non-transitory computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which when

executed by a portable electronic device with a touch screen display, cause the device to: [a] display at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content; [b] detect a first gesture at a location on the displayed portion of the structured electronic document; [c] determine a first box in the plurality of boxes at the location of the first gesture; [d] enlarge and translate the structured electronic document so that the first box is substantially centered on the touch screen display; [e] while the first box is enlarged, detect a second gesture on a second box other than the first box; and [f] in response to detecting the second gesture, translate the structured electronic document so that the second box is substantially centered on the touch screen display.

- 386. Claim 51 generally tracks the language of Claim 2. I incorporate by reference in its entirety my explanations and opinions directed to non-infringement of Claim 2 of the '163 Patent above.
- 387. Just as the Accused Products do not meet the claim limitations set forth in Claim elements 2[b], 2[d]-[g], they do not meet the claim limitations set forth in Claim elements 51[a], 51[c]-[f]. It is my opinion that the Accused Products therefore do not infringe Claim 51.
- 388. For at least these reasons, the Accused Products do not infringe Claim 51 of the '163 Patent, either literally or under the doctrine of equivalents.

41. '163 Patent, Claim 52

389. '163 Patent, Claim 52 recites:

A portable electronic device with a touch screen display, comprising: [a] means for displaying at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content; [b] means for detecting a first gesture at a location on the displayed portion of the

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

structured electronic document; [c] means for determining a first box in the plurality of boxes at the location of the first gesture; [d] means for enlarging and translating the structured electronic document so that the first box is substantially centered on the touch screen display; [e] means for, while the first box is enlarged, a second gesture is detected on a second box other than the first box; and [f] means for, in response to detecting the second gesture, the structured electronic document is translated so that the second box is substantially centered on the touch screen display.

- 390. Claim 52 generally tracks the language of Claim 2. I incorporate by reference in its entirety my explanations and opinions directed to non-infringement of Claim 2 of the '163 Patent above.
- 391. Just as the Accused Products do not meet the claim limitations set forth in Claim elements 2[b], 2[d]-[g], they do not meet the claim limitations set forth in Claim elements 52[a], 52[c]-[f]. It is my opinion that the Accused Products therefore do not infringe Claim 52.
- 392. Furthermore, as discussed in my opening invalidity report, it is impossible to tell whether the algorithms embodied in the Accused Products infringe Claim 52 because this claim provides no guidance as to what particular "means" are used by the "portable electronic device." Without guidance (either in the claim or in the Patent specification) as to the nature of the these "means" one ordinarily skilled in the art would be unable to assess the scope of this claim. As stated in my invalidity report, Claim 52 is indefinite for a failure to disclose sufficient corresponding structure to apprise a person of ordinary skill as to what "instructions" or "algorithms" are being claimed.
- 393. The Singh Report does cite to a portion of the Patent specification describing a "touch screen display coupled to one or more special or general purpose processors programmed with special-purpose software to execute an algorithm, the special-purpose software including computer instructions for displaying at least a portion of a structured electronic document on the touch screen display." Singh Report at ¶ 262. However, it is my opinion that this "structure" is insufficient to apprise a person ordinarily skilled in the art as to what is being claimed by Claim 52. The cited provision provides no

clue as to the nature of the "special-purpose software," or "computer instructions." No specific algorithm or code sequence is disclosed.

394. For at least these reasons, the Accused Products do not infringe Claim 52 of the '163 Patent, either literally or under the doctrine of equivalents.

C. Samsung Devices Do Not Indirectly Infringe The Method Claims Of The '163 Patent

395. The Singh Report offers a definition of the term "ordinary and intended use" which is used throughout the '163 infringement analysis:

By "ordinary and intended use" in this section of my Report, I mean actions that virtually *every* user of a Samsung Accused Product would perform when using the Accused Product, and which Samsung encouraged and intended the user to perform.

Singh Report ¶ 41.

396. In using this term to describe certain features of the Accused Products, the Singh Report is apparently attempting to establish that the features are inevitably used by purchasers of Samsung devices such that further evidence of indirect infringement is unnecessary. I disagree with this characterization of the method claims and issue, and I disagree that the opinions and evidence offered in the Singh Report support a viable indirect infringement theory.

1. The Method Claims Of The '163 Patent Are Not Part Of The "Ordinary And Intended Use" Of The Samsung Devices.

- 397. Each of the '163 method claims asserted by Apple is or depends on independent Claim 2. Independent Claim 2 requires the use of a "second gesture" on a second box of the structured electronic document, "while the first box is enlarged," in order to "translate[] the structured electronic document so that the second box is substantially centered on the touch screen display."
- 398. For several reasons, the functionality associated with this second gesture is not part of the "ordinary and intended use" of the Accused Products. First, the allegedly infringing behavior in each of the Accused Products involve a second gesture that is the same or at least similar to the first gesture. However, immediately after achieving an enlarging/zooming effect with the first gesture, it is my

opinion that a user would be unlikely to associate the same or similar gesture with a completely different panning/translating operation. Indeed the "tool tip" contextual information that is provided on the Galaxy Tab 10.1 (and which is cited in the Singh Report) states "double tap to zoom in an out," but makes no reference to a panning or translating operation in response to a second tapping gesture. The use of the second gesture to re-center the view on a second box is therefore neither intuitive, nor certain to be discovered or used by users of the Accused Products.

399. Second, the functionality associated with this second gesture is redundant. Each of the Accused Products include a feature wherein a user can translate a structured electronic document in any direction in response to a finger drag across the touch-screen display. Using this finger drag method, a user is able to pan across a structured electronic document and consequently re-center the view on a second box of content with a gesture that is truly distinct from the first, "tap-to-zoom" gesture. In fact, the Samsung user manuals cited by the Singh Report – which state "Touch and drag your finger on the screen to navigate pages, and to reposition pages within the screen" - describe this finger drag method and thus teach away from using a second gesture to re-center the view on a second area of interest. See APLNDC-Y0000058046; APLNDC-Y0000060424; APLNDC-Y0000061493; APLNDC-Y0000061697; APLNDC-Y0000061866; APLNDC-Y0000063918; APLNDC-Y0000065351; APLNDC-Y0000066627; APLNDC-Y0000065800.

400. The Singh Report opines that "[o]nce a user zooms in using a double tap, it is overwhelmingly likely – given the relatively small size of the displays of the Accused Products and typical practice in using touch screen devices – that he will tap again on a different box " Singh Report at ¶ 41. But, in my opinion the finger drag method is far more intuitive and permits the user a far greater degree of freedom in repositioning the view of a zoomed-in document than does the second gesture described by the '163 Patent. I believe that the finger drag is the method that nearly all users of the Accused Products will employ in repositioning the enlarged view of a structured electronic document.

401. For these reasons, I disagree with the Singh Report that the functionality of the second gesture of Claim 2 of the '163 Patent is part of the "ordinary and intended use" of the Accused Products,

28

1

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

or that "virtually all users of the Samsung Accused Products would engage in direct infringement of the '163 Patent." See Singh Report ¶ 41.

2. Samsung Does Not Encourage Or Instruct Its Users To Infringe The Method Claims Of The '163 Patent

402. The Singh Report states that the use of documentation in manuals and "tool tips" associated with the Accused Products indicates that Samsung "encouraged and intended" the use of the method claims disclosed by the '163 Patent:

For example, manuals included with Samsung Accused Products instruct users to "[t]ap the screen twice to zoom in or out" when viewing a web page in the Browser application. [citations omitted] In addition, each of the Samsung Accused Products, with the exception of the Galaxy Tab 10.1, includes a "tool tip" (i.e., contextual instructions to the user in a popup window) that is programmed to appear automatically when a user first uses the Browser application. The tool tip displays the text "Tip: double tap to zoom in and out."

Singh Report ¶ 41.

- 403. Noticeably absent from the Singh Report's description of these "tool tips" and user manuals, however, is any suggestion that Samsung encouraged users to undertake the "second gesture" in order to infringe Apple's Asserted Claims. For example, although the tool tip instructs users to "double tap to zoom in and out," there is no similar contextual information given once the user is zoomed-in that suggests tapping on a "second box" to re-center the view.
- 404. Similarly, each of the user manuals cited by the Singh Report make absolutely no mention using a tap gesture to re-center a zoomed-in view on a second box of content. Each of these manuals instructs users to (i) "Tap the screen twice to zoom in or out"; and (ii) "Touch and drag your finger on the screen to navigate pages, and to reposition pages within the screen." APLNDC-Y0000058046; APLNDC-Y0000060424; APLNDC-Y0000061493; APLNDC-Y0000061697; APLNDC-Y0000061866; APLNDC-Y0000063918; APLNDC-Y0000065351; APLNDC-Y0000065351; APLNDC-Y0000065351;

2 3

1

4 5

7 8

6

10

9

11 12

13 14 15

17 18

16

19 20 21

23 24 25

22

26

Y0000066627; APLNDC-Y0000065800. Therefore, rather than encouraging users to practice the method of Claim 2, the manuals of the Accused Products instruct users to practice the finger-drag method, which, as I described above, is far more functional and intuitive.

- 405. Other than the cited "tool tips" and user manuals, the Singh Report offers no support for the implicit assertion that allegedly infringing behavior of the Accused Products is "encouraged and intended [for] the user to perform."
- 406. It is my opinion that Samsung does not "encourage" or "intend" users to engage in the allegedly infringing behavior cited by Apple and Singh Report.
 - The Singh Report Cites No Evidence Of Direct Infringement By Users And 3. No Evidence That Samsung Intended Users To Engage In The Acts Constituting Infringement With Intent That They Infringe.
- 407. Finally, I understand that a necessary prerequisite to an indirect infringement theory is evidence of direct infringement by another. The Singh Report cites to no evidence in the record (and I am aware of none) that establishes that any person or entity caused the Accused Products to engage in the allegedly infringing behavior at any time.
- 408. Further, under my understanding of the law, an inducement of infringement theory requires the alleged inducer to not only intend the acts constituting direct infringement be done, but to intend such acts with knowledge that they constitute infringement. Although the Singh report repeatedly attempts (unsuccessfully) to show that Samsung "encouraged and intended" users to engage in the acts alleged to constitute infringement, I would note that the Report does not even address the question whether Samsung had knowledge that the acts allegedly encouraged constituted direct infringement of the '163 Patent.
- 409. Finally, it is my opinion that each of the Accused Products is capable of substantial noninfringing use. In fact, as compared to the non-infringing utility of the Accused Products, the accused behavior is merely a trivial functionality.
- 410. For at least these reasons, it is my opinion that the Singh report does not even make a threshold showing that any of the method claims of the '163 Patent are indirectly infringed.

D. Samsung's Alleged "Emulation" Of The Features Of The '163 Pate	D.	Samsung's Alleged	"Emulation"	Of The Features	Of The	'163 Pate
---	----	-------------------	-------------	-----------------	--------	-----------

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

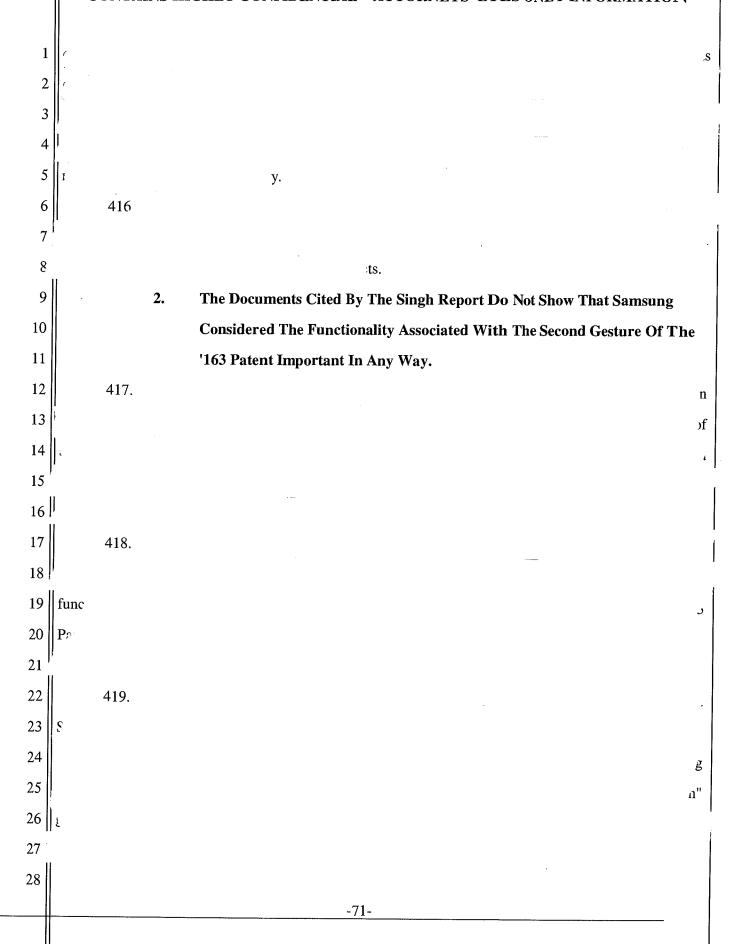
- 411. In Section V.E, the Singh Report accuses Samsung of "emulating" design features described by the '163 Patent and embodied in Apple devices. Specifically, the Singh Report states that Samsung "studied a number of Apple products that embody the asserted claims of the '163 patent, recognized the benefits of the '163 patent, and implemented the features of the '163 patent in Samsung products." Singh Report ¶ 275. I disagree with the conclusions of the Singh Report, and I disagree that the documents cited in Section V.E establish that Samsung has emulated the functionality of the '163 Patent.
- 412. I have reviewed each of the documents cited in Section V.E of the Singh Report, and most merely show that Samsung compared the performance of the zooming feature on its devices with the performance of Apple devices. Additionally, while the Singh Report cites extensively to documents showing comparison to Apple's zooming, there are no documents that show that Samsung conducted any comparisons to the "tap-to-pan" feature (function associated with the second gesture of the '163 Patent) or found this feature important in any way.
 - 1. Many Of The Documents Cited By The Singh Report Show That Samsung Conducted Performance Comparisons, Not That It Emulated Apple's Design Choices.
 - 413. First, the Singh Report attempts to make much of document

18 19 d 20 21 22 3. 23 414. The documents at ιhat

24 25 L 26 415.

27 28

-70-



2 3 420. 4 5 he 6 7 8 ٠d 9 10 421. 11 12 13 14 15 422. For these reasons, it is my opinion that the Singh Report does not cite evidence sufficient to make even a threshold showing that Samsung intentionally emulated features embodied in Apple 17 products or described by the '163 Patent. 18 E. **Other Non-infringing Alternatives** 19 423. Although it is my opinion that none of the Accused Products infringe the Asserted 20 Claims, I also believe there are several other non-infringing alternatives to Claim 2 of the '163 Patent. 21 I would note that several web designers, apparently finding the '163 methods for 22 navigating structured electronic documents on small-screen devices insufficient, have actually begun to 23 create specially designed "mobile" versions of their websites to more permit users to more easily navigate such websites without the need for the "tap-to-zoom" or "tap-to-pan" features. Such "mobile" 25 websites are themselves non-infringing alternatives and are continuously becoming more prevalent. The 26 ubiquity of such "mobile" devices likely explains why the analysis of the Singh Report and the exhibits 27 in support are limited strictly to a single webpage (the *New York Times*). 28

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

- 425. Additionally, it is my opinion that a non-infringing alternative can be designed by removing the functionality associated with the second gesture completely. I disagree with the Singh Report opinion that removing this "tap-to-pan" feature would be undesirable because the feature is "elegant" and "intuitive" (¶ 281). Instead, it is my opinion that eliminating the translating step of Claim 2 in response to a second gesture would not appreciably decrease user satisfaction for the following reasons:
- 426. First, upon observing the device perform a zoom operation in response to a first gesture, it is my opinion that a user would not expect the device to perform a completely different translating operation in response to a second gesture that is the same or similar. The second gesture is thus not intuitive and unlikely to be discovered by users.
- 427. Second, because the first gesture "enlarges" and "substantially centers" a first box, it is often the case that whatever portion of a second box that is visible on the touch screen display would be in the periphery of the user's view. Because of the limited space on such devices, it is likely that only a very minor portion (if any) of such a second box would be visible or accessible to users (as is illustrated in Exhibit 11 to the Singh Report). Further, because the "boxes" of content on the Accused Products are not bounded by delineated borders, and it would be unclear to a user whether and where such a "second box" existed. It is therefore unlikely that the second box would provide a sufficient visual cue to the permit the user to gesture at a location of the second box.
- 428. Third, each of the manuals cited by the Singh Report expressly describe a finger "[t]ouch and drag" gesture that permits users to "reposition pages within the screen." Because of this express guidance in the device user manuals, and because I believe users would find touching and dragging the screen far more intuitive for a panning or translating operation, it is my opinion that users are far more likely to use this "touch and drag" gesture to translate across an enlarged view of a web-page.
- 429. Fourth, as I noted in my invalidity report, the functionality associated with the second gesture was added by the *Patent Examiner* late in the prosecution history of the '163 Patent after an initial rejection. The fact that Apple did not initially include the functionality associated with the second gesture, and the fact that the limitation was added by the Examiner, indicates to me that even Apple did

not consider the "tap-to-pan" feature important to functionality. By all indications, the "tap-to-pan" feature was *only* important to the Patent Examiner and *only* for purposes of patentability.

430. For these reasons, it is my opinion the "second gesture" described by Claim 2 of the '163 Patent does not appreciably improve the functionality of portable electronic devices, and this feature could be eliminated from an infringing device without any noticeable loss of user satisfaction.

431.

ng.

432. Finally, I understand that removing the "second gesture" functionality would not take a significant amount of time or effort. Indeed, a programmer can simply change the response to the second gesture to perform a non-infringing operation (such as a zooming out), or to do nothing. It is my opinion that most users would not even notice the absence of this functionality. Moreover, as explained above, there would be no need to change any documentation associated with the Accused Products because I am only aware of documentation that shows another (non-infringing) way to reposition the page after zooming in.

CONCLUSION

433. For the foregoing reasons, it is my opinion that the Asserted Products do not infringe either the '915 Patent or the '163 Patent.