

# EXHIBIT EE

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**United States District Court  
Northern District of California**

**Apple Inc.**

**v.**

**Samsung Electronics Co., Ltd. et al.**

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**Expert Report of Michael J. Wagner**

**April 16, 2012**

**Volume I**

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

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# Tab 1

**United States District Court  
Northern District of California  
San Jose Division  
Case No. 11-cv-01846 LHK**

**APPLE INC.**

**v.**

**SAMSUNG ELECTRONICS CO., LTD, SAMSUNG ELECTRONICS  
AMERICA, INC., SAMSUNG TELECOMMUNICATIONS AMERICA, LLC**

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**Expert Report of  
Michael J. Wagner  
April 16, 2012**

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## I. Introduction

1. I have been retained on behalf of Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.; and Samsung Telecommunications America, LLC (collectively “Samsung”) to provide an opinion regarding damages resulting from Samsung’s alleged infringement of Apple Inc.’s (“Apple”)’s U.S. Patent No. 6,493,002 (“the ‘002 Patent”) titled “Method and Apparatus for Displaying and Accessing Control and Status Information in a Computer System;” U.S. Patent No. 7,469,381 (“the ‘381 Patent”) titled “List Scrolling and Document Translation, Scaling and Rotation on a Touch-Screen Display;” U.S. Patent No. 7,844,915 (“the ‘915 Patent”) titled “Application Programming Interfaces for Scrolling Operations;” U.S. Patent No. 7,853,891 (“the ‘891 Patent”) titled “Method and Apparatus for Displaying a Window for a User Interface;” U.S. Patent No. 7,663,607 (“the ‘607 Patent”) titled “Multipoint Touchscreen;” U.S. Patent No. 7,864,163 (“the ‘163 Patent”) titled “Portable Electronic Device, Method, and Graphical User Interface for Displaying Structured Electronic Documents;” U.S. Patent No. 7,920,129 (“the ‘129 Patent”) titled “Double-Sided Touch-Sensitive Panel With Shield And Drive Combined Layer;”<sup>1</sup> U.S. Patent No. D627,790 (“the ‘D790 Patent”) titled “Graphical User Interface For a Display Screen or Portion Thereof;” U.S. Patent No. D617,334 (“the D334 Patent”) titled “Graphical User Interface For a Display Screen or Portion Thereof;” U.S. Patent No. D604,305 (“the D305 Patent”) titled “Graphical User Interface For a Display Screen or Portion Thereof;” U.S. Patent No. D593,087 (“the ‘D087 Patent”) titled “Electronic Device;” U.S. Patent No. D618,677 (“the ‘D677 Patent”) titled “Electronic Device;” U.S. Patent No. D622,270 (“the ‘D270 Patent”) titled “Electronic Device;” U.S. Patent No. D504,889 (“the ‘D889 Patent”) titled “Electronic Device;”<sup>2</sup> Apple’s Registered Trade Dress including U.S. Registrations 3,470,983, 3,457,218, and 3,475,327;<sup>3</sup> Apple’s Trademarks;<sup>4</sup> alleged Lanham Act violations; and alleged unfair business practices related to Apple’s iPad / iPhone trade dress.<sup>5, 6</sup>

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<sup>1</sup> Apple Inc.’s Amended Complaint, June 16, 2011, pp. 50-55. [2.1] References in report are to [Volume and Tab].

<sup>2</sup> Apple Inc.’s Amended Complaint, June 16, 2011, pp. 55-60. [2.1]

<sup>3</sup> Apple Inc.’s Amended Complaint, June 16, 2011, pp. 41-43. [2.1]

<sup>4</sup> Apple Inc.’s Amended Complaint, June 16, 2011, pp. 43-44, 46-48. [2.1]

<sup>5</sup> Apple Inc.’s Amended Complaint, June 16, 2011, pp. 39-41, 44-46, 48-50. [2.1]

<sup>6</sup> In its Amended Complaint, Apple also asserts U.S. Patent No. 7,812,828 (“the ‘828 Patent”) titled “Ellipse Fitting for Multi-Touch Surfaces.” (Apple Inc.’s Amended Complaint, June 16, 2011, pp. 52-53. [2.1]) In his expert report, Apple’s damages expert, Terry L. Musika, did not calculate damages for the ‘828 Patent. (Expert Report of Terry L. Musika, CPA, March 22, 2012 (hereafter “Musika Report”). [2.2]) Apple’s survey expert, John R. Hauser, indicates that he was “informed by counsel that the ‘828 Patent is no longer relevant for the purposes of [his] report.” (Expert Report of John R. Hauser, March

2. In forming the opinions I express in this report, I have assumed that Apple's Patents are valid and enforceable, and that Samsung's accused products infringe these patents. I have assumed that Apple's Trademarks are valid and that Samsung's accused products infringe these trademarks. Finally, I have assumed that Apple's allegations relating to its trade dress will be proven at trial. I have no opinion as to whether any of these assumptions dealing with liability issues are appropriate.

3. My opinions address the following matters:

- My disagreements with the opinions expressed by Terry L. Musika in the Expert Report of Terry L. Musika, CPA.
- Apple's entitlement to lost profits from lost sales and lost convoyed sales due to Samsung's alleged infringement of Apple's intellectual property.
- Samsung's profits related to its alleged infringement of Apple's design patents, trademarks, and trade dress and the appropriate apportionment of profits to the intellectual property at issue.
- The reasonable royalty that is adequate to compensate Apple for Samsung's alleged infringement of Apple's intellectual property.

## **II. Summary of Opinions**

### **A. Disagreements With the Opinions Expressed By Terry Musika**

1. **Mr. Musika's analysis is a high-level analysis and is largely divorced from the specific intellectual property that is at issue in this lawsuit.**
  - a) **Mr. Musika fails to provide evidence of demand for the specific design IP at issue.**
  - b) **Mr. Musika fails to provide evidence of demand for the specific utility patents at issue.**
2. **Although Mr. Musika claims not to use the entire market value rule, in effect he does.**
3. **Mr. Musika does not establish Apple's entitlement to lost profits related to Samsung's infringement of the intellectual property at issue.**

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22, 2012 (hereafter, "Hauser Report"), p. 7. [2.33]) Therefore, I do not address the '828 Patent in my report. However if Messrs. Musika and Hauser subsequently attempt to express an opinion as to damages on the '828 Patent, I expect that I will be allowed to respond to those opinions.

- a) **Mr. Musika has not provided sufficient evidence of demand for the intellectual property at issue.**
  - b) **Samsung has acceptable, non-infringing alternatives available for the asserted intellectual property.**
  - c) **Mr. Musika has not proven that Apple has sufficient capacity for all time periods.**
- 4. Even if Mr. Musika were to prove entitlement to lost profits, his lost profits calculations significantly overstate the amount of lost profits.**
- a) **Mr. Musika does not take price elasticity of demand into consideration in his lost profits calculation.**
  - b) **Mr. Musika includes lost profits for the Galaxy Tab 7.0 (3G), which is not appropriate based on Mr. Musika's own analysis.**
  - c) **Mr. Musika incorrectly uses an assumption that 26% of users select a new carrier when purchasing a cell phone in calculating his lost profits damages.**
  - d) **Mr. Musika's analysis does not properly take into account platform competition and the fact that Samsung customers chose to not purchase an iPhone.**
  - e) **Mr. Musika's incremental profitability is overstated, resulting in significantly overstated lost profits.**
- 5. Mr. Musika's calculation of Samsung's profits related to the infringement is overstated.**
- 6. Mr. Musika's reasonable royalty analysis relies on unreasonable benchmarks and results in an overstated concluded reasonable royalty rate .Lost Profits Capacity Analysis**
- a) **Mr. Musika's cost approach does not provide a reasonable value for the intellectual property at issue.**

- b) Mr. Musika’s income approach does not provide a reasonable value for the intellectual property at issue.**
- c) The other benchmarks mentioned by Mr. Musika are not relevant to the reasonable royalty analysis.**
- d) Mr. Musika’s analysis does not take into account several data points that would result in a much lower reasonable royalty rate.**
- e) Mr. Musika takes into account inappropriate considerations in his Georgia-Pacific analysis that result in an artificially high royalty rate.**
- f) Mr. Musika’s concluded royalty rate is unreasonably high.**

**B. Lost Profits related to Patent Infringement:**

- 1. Lost Profits is not an appropriate measure of damages in this case.**

**C. Samsung’s Profit Related to the Asserted Design-Related Intellectual Property<sup>7</sup>**

- 1. All of Samsung’s operating expenses qualify as deductible expenses with the exception of the legal expenses related to this lawsuit.**
- 2. A reasonable apportionment of Samsung’s profits to Apple’s design-related intellectual property at issue is one percent.**
- 3. Applying the apportionment percentage results in a calculation of Samsung’s profits related to its infringement of Apple’s design-related intellectual property as follows:**

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<sup>7</sup> The calculations presented in this summary and presented in the figures in this report are based on worldwide data for manufacturing expenses. On the date of my report, Samsung provided additional data to me that included manufacturing expenses limited to accused products sold in the U.S. I have performed additional calculations with these data that are included as a separate damages model in Tab 6 at Volume 1 of my report. I do not include the summary of those calculations here.

<b>STA and SEA Profit After Deductible Expenses</b>			
	<b>STA, SEA and SEC Profit After Deductible Expenses</b>	<b>Apportionment</b>	<b>Apportioned STA, SEA and SEC Profit After Deductible Expenses</b>
	<i>[a]</i>	<i>[b]</i>	<i>[c]</i>
2010	\$32,462,528	1.0%	\$324,625
2011	(\$48,043,266)	1.0%	(\$480,433)
Total	(\$15,580,737)	1.0%	(\$155,807)
April 15 - December 31, 2011	(\$20,410,379)	1.0%	(\$204,104)
June 16 - December 31, 2011	(\$40,964,700)	1.0%	(\$409,647)

<b>STA, SEA and SEC Profit After Deductible Expenses</b>			
	<b>STA, SEA and SEC Profit After Deductible Expenses</b>	<b>Apportionment</b>	<b>Apportioned STA, SEA and SEC Profit After Deductible Expenses</b>
	<i>[a]</i>	<i>[b]</i>	<i>[c]</i>
2010	\$527,639,164	1.0%	\$5,276,392
2011	\$461,912,616	1.0%	\$4,619,126
Total	\$989,551,780	1.0%	\$9,895,518
April 15 - December 31, 2011	\$322,436,018	1.0%	\$3,224,360
June 16 - December 31, 2011	\$124,602,517	1.0%	\$1,246,025

**D. Reasonable Royalty:**

1. The reasonable royalty that is adequate to compensate Apple for Samsung's alleged infringement of Apple's asserted intellectual property is summarized as follows:

**Design Around Costs**

<u>Utility Patents</u>	
'002	\$9,240
'163	\$5,880
'381	\$11,340
'891	\$8,820
'915	\$10,080
'607	\$1,600,000
'129	\$1,600,000
Cost to Design a New Icon (per Icon)	\$420
Cost to Design and Implement a New GUI	\$1,152
Trade Dress (Based on New GUI)	\$1,152
Trade Dress (Device Related)	\$0
Electronic Device Design Patents	\$0

In addition, a royalty amount would be due for the '607 Patent calculated as follows:

	<u>Units</u>	<u>Royalty Rate</u>	<u>Royalties Due</u>
<i>5/1/10 - 12/31/11</i>			
Galaxy Tab 7.0 (3G)	665,620	\$2.10	\$1,397,802
<i>6/16/11 - 12/31/11</i>			
Galaxy Tab 7.0 (3G)	218,341	\$2.10	\$458,516

- Alternatively, for the Electronic Device Design Patents and Apples Trade Dress, a reasonable royalty based on Samsung’s apportioned profit related to Apple’s design-related IP is \$0.60 per unit for smartphones and \$0.30 per unit for tablets. Applying these royalty rates to the relevant royalty bases results in royalties calculated as follows:**

	<b>Units</b>	<b>Royalty Rate</b>	<b>Royalties Due</b>
<i>5/1/10 - 12/31/11</i>			
Smartphones	17,084,829	\$0.60	\$10,250,897
Tablets	1,145,643	\$0.30	\$343,693
<b>Total</b>	<b>18,230,472</b>		<b>\$10,594,590</b>
<i>4/15/11 - 12/31/11</i>			
Smartphones	9,304,458	\$0.60	\$5,582,675
Tablets	780,734	\$0.30	\$234,220
<b>Total</b>	<b>10,085,192</b>		<b>\$5,816,895</b>
<i>6/16/11 - 12/31/11</i>			
Smartphones	6,084,352	\$0.60	\$3,650,611
Tablets	628,945	\$0.30	\$188,684
<b>Total</b>	<b>6,713,297</b>		<b>\$3,839,295</b>

### III. Background and Description of the Inventions

#### A. Parties to the Litigation

##### 1. Apple Inc.

4. Apple Inc. is a California corporation having its principal place of business at 1 Infinite Loop, Cupertino, California 95014.<sup>8</sup> Apple is a technology company that “designs, manufactures and markets mobile communication and media devices, personal computers, and portable digital music players, and sells a variety of related software, services, peripherals, networking solutions, and third-party digital content and applications.”<sup>9</sup> Included in its product portfolio are consumer electronics devices like iPhone®, iPad®, and iPod®, as well as the Mac® computer product line, Apple TV®, the iOS and Mac OS® X operating systems, and various other software applications and services.<sup>10</sup> Apple “also sells and delivers digital content and applications through the iTunes Store®, App Store<sup>SM</sup>, iBookstore<sup>SM</sup>, and Mac App Store.”<sup>11</sup>

<sup>8</sup> Apple Inc.’s Amended Complaint, June 16, 2011, ¶ 6, p. 2. [2.1]

<sup>9</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, cover and p. 1. [2.34]

<sup>10</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 1. [2.34]

<sup>11</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 1. [2.34]



5. Apple, incorporated in 1977 as Apple Computer Inc., began selling computers in 1976 with the Apple I.<sup>12</sup> A few years later, on December 12, 1980, Apple made its initial public offering at \$22.00 per share.<sup>13</sup> On January 9, 2007, then CEO Steve Jobs announced that Apple had changed its name from Apple Computer, Inc. to Apple Inc.<sup>14</sup>

6. According to Apple's 10-K for its fiscal year ended September 24, 2011, "[t]he Company manages its business primarily on a geographic basis."<sup>15</sup> As such, Apple's reportable operating segments are the Americas (North and South America), Europe (Europe, the Middle East, and Africa), Japan, Asia-Pacific (Australia and Asia, excluding Japan) and retail (Apple's retail stores).<sup>16</sup> Each segment provides similar hardware, software, and services.<sup>17</sup>

7. During its fiscal year ended in September, 2011, Apple earned \$25.9B in net income from \$108.2B in net sales.<sup>18</sup> This represents growth in net sales of 44.9 percent CAGR<sup>19</sup> (Compound Annual Growth Rate) and growth in net income of 65 percent CAGR<sup>20</sup> over the fiscal period from 2007 through 2011.<sup>21</sup>

## 2. Samsung Electronics Co., Ltd.

8. Samsung Electronics Co., Ltd. (referred to individually as "SEC") is a Korean corporation with its principal place of business at 416 Maetan-3dong, Yeongtong-gu, Suwon-City, Gyeonggi-do, Korea 443-742.<sup>22</sup> SEC designs, manufactures, and provides to the U.S. and world markets a wide range of products, including consumer electronics, computer components, and myriad mobile and entertainment products.<sup>23</sup> Today, SEC manufactures and sells

<sup>12</sup> Steve Jobs at Apple: A Timeline, PCWorld, August 24, 2011, <[http://www.pcworld.com/article/238745/steve\\_jobs\\_at\\_apple\\_a\\_timeline.html](http://www.pcworld.com/article/238745/steve_jobs_at_apple_a_timeline.html)>. [2.35]

<sup>13</sup> Frequently Asked Questions, Apple Inc., <<http://investor.apple.com/faq.cfm>>. [3.1]

<sup>14</sup> Apple drops 'Computer' from name, Macworld, January 9, 2007, <<http://www.macworld.com/article/54770/2007/01/applename.html>>. [3.2]

<sup>15</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 2. [2.34]

<sup>16</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 2. [2.34]

<sup>17</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 2. [2.34]

<sup>18</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 24. [2.34]

<sup>19</sup> 
$$CAGR = \left( \frac{\$108.2B}{\$24.6B} \right)^{\frac{1}{4 yrs}} - 1 \approx .449$$

<sup>20</sup> 
$$CAGR = \left( \frac{\$25.9B}{\$15.8B} \right)^{\frac{1}{4 yrs}} - 1 \approx .650$$

<sup>21</sup> Apple Inc. Form 10-K for the fiscal year ended September 24, 2011, p. 24. [2.34]

<sup>22</sup> Samsung Entities' Answer to Apple Inc.'s Amended Complaint, June 30, 2011, p. 35. [10.3]

<sup>23</sup> Apple Inc.'s Amended Complaint, June 16, 2011, ¶ 7, p. 2. [2.1]

semiconductors, LCDs, telecommunication products, and digital media products.<sup>24</sup> Recently, 13 of Samsung’s products, including semiconductors, TFT-LCDs, monitors, and CDMA mobile phones, have earned the top global market share.<sup>25</sup>

9. Over the 2011 fiscal year, SEC’s Consolidated Statements of Income show \$11.9B in profit on \$143.1B in revenue.<sup>26</sup> This represents a 6.7 percent growth in revenue and a 15.0 percent decline in profit over the 2010 fiscal year.<sup>27</sup>

10. SEC’s consolidated subsidiaries include companies spanning Korea, the Americas (including both Samsung Electronics America and Samsung Telecommunications America), Europe, Africa, China, and other parts of Asia.<sup>28</sup>

### **3. Samsung Electronics America, Inc.**

11. Samsung Electronics America, Inc. (referred to individually as “SEA”) is a New York corporation with its principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660. SEA was formed in 1978<sup>29</sup> as a subsidiary of SEC and markets, sells, or offers for sale a variety of consumer electronics, including TVs, VCRs, DVD and MP3 players, and video cameras, as well as memory chips and computer accessories, such as printers, monitors, hard disk drives, and DVD/CD-ROM drives.<sup>30</sup> SEA “is focused on continually expanding its position in the U.S. market while upholding Samsung’s mission to provide consumers with innovative products that converge digital technologies and offer exceptional quality, features, performance and value.”<sup>31</sup>

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<sup>24</sup> Consolidated Financial Statements of Samsung Electronics Co., Ltd. and Subsidiaries, Q3 2011, <[http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011\\_Consolidated\\_quarter03\\_all.pdf](http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011_Consolidated_quarter03_all.pdf)>, p. 14. [3.3]

<sup>25</sup> About Samsung, History, 2000 - Present, <<http://www.samsung.com/us/aboutsamsung/corporateprofile/history.html>>. [3.4]

<sup>26</sup> 2011 Samsung Electronics Annual Report, Income Statement, <[http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011\\_con\\_quarter04\\_soi.pdf](http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011_con_quarter04_soi.pdf)>, p. 4. [3.3]

<sup>27</sup> Revenue Growth Rate =  $\$143.1\text{B} / \$134.1\text{B} - 1 = .067$ . Profit Growth Rate =  $\$11.9\text{B} / \$14.0\text{B} - 1 = 0.15$ . (2011 Samsung Electronics Annual Report, Income Statement, <[http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011\\_con\\_quarter04\\_soi.pdf](http://www.samsung.com/us/aboutsamsung/ir/financialinformation/auditedfinancialstatements/downloads/consolidated/2011_con_quarter04_soi.pdf)>, p. 4. [3.3])

<sup>28</sup> 2011 Samsung Electronics Annual Report, <[http://www.samsung.com/us/aboutsamsung/ir/financialinformation/annualreport/downloads/2010/SECAR2010\\_Eng\\_Final.pdf](http://www.samsung.com/us/aboutsamsung/ir/financialinformation/annualreport/downloads/2010/SECAR2010_Eng_Final.pdf)>, pp. 12-15. [3.5]

<sup>29</sup> Samsung Entities’ Answer to Apple Inc.’s Amended Complaint, June 30, 2011, p. 2. [10.3]

<sup>30</sup> Apple Inc.’s Amended Complaint, June 16, 2011, ¶ 8, pp. 2-3. [2.1]

<sup>31</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

12. SEA comprises the Consumer Business Division and the Enterprise Business Division, both of which are headquartered in Ridgefield Park, New Jersey.<sup>32</sup> The North American Headquarters, which are in Ridgefield Park, as well, “oversee[] the North American Subsidiaries of Samsung Telecommunications America; Samsung Semiconductor, Inc.; Samsung Information Systems America; and Samsung Austin Semiconductor.”<sup>33</sup> The North American Headquarters also oversee Samsung Electronics Canada and Samsung Electronics Mexico.<sup>34</sup>

13. The Consumer Business Division (“CBD”) “offers a full range of award-winning digital products for the home and individual use, including LED, LCD and Plasma televisions, Blu-ray Disc players, Home Theater Systems, Digital Cameras, Digital Camcorders, Solid State Hard Drives, External Hard Drives and Portable Audio Devices.”<sup>35</sup> CBD also sells home appliances through its Home Appliance group.<sup>36</sup>

14. The Enterprise Business Division (“EBD”) is an IT company “committed to serving the needs of consumers ranging from the home user to the Fortune 500 elite and supporting the valued channel partners who serve [its] customers.”<sup>37</sup> EBD offers printers, monitors, laptops, digital signage, and projectors, as well.<sup>38</sup>

#### **4. Samsung Telecommunications America, LLC**

15. Samsung Telecommunications America, LLC (referred to individually as “STA”) is a Delaware limited liability company with its principal place of business at 1301 East Lookout Drive, Richardson, Texas 75081. STA was founded in 1996 as a subsidiary of SEC and markets, sells, or offers for sale a variety of personal and business communications devices in the United States, including cell phones.<sup>39</sup> STA “researches, develops and markets a variety of

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<sup>32</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>33</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>34</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>35</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>36</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>37</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>38</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>39</sup> Apple Inc.’s Amended Complaint, June 16, 2011, ¶ 9, p. 3. [2.1]

personal and business communications products throughout North America, including handheld wireless phones, wireless communications infrastructure systems, fiber optics and enterprise communication systems.”<sup>40</sup>

## **B. Apple’s Asserted Intellectual Property**

16. Apple has asserted a large number of intellectual property elements against Samsung. I have analyzed each of these IP elements individually, but I frequently address groups of the asserted IP collectively in this report due to the large number of IP elements at issue. I describe below the logical groups of IP elements that are discussed in this report.

### **1. Apple’s Utility Patents**

17. I address seven utility patents that Apple has asserted against Samsung.<sup>41</sup> I group these utility patents as user interface patents and touchscreen-related patents.

#### **a) User Interface Utility Patents**

##### **(1) 6,493,002 (“ ‘002 Patent”): Method and Apparatus for Displaying and Accessing Control and Status Information in a Computer System**

18. U.S. Patent number 6,493,002 was filed on March 20, 1997 and issued on December 10, 2002.<sup>42</sup> Steven Christensen, the named inventor of the ‘002 Patent, assigned the patent to Apple Computer, Inc.<sup>43</sup>

19. The abstract of the ‘002 Patent is reproduced below:<sup>44</sup>

An interactive computer-controlled display system having a processor, a data display screen, a cursor control device for interactively positioning a cursor on the data display screen, and a window generator that generates and displays a window on a data display screen. The window region provides status and control information in one or more data display areas.

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<sup>40</sup> About Samsung, US divisions, no date, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/businessarea/usdivisions.html>>. [3.6]

<sup>41</sup> As I discuss above, the Musika Report and the Hauser Report do not address the ‘828 Patent. Therefore, I do not address the ‘828 Patent in my report. However, if Messrs. Musika and Hauser subsequently attempt to express an opinion as to damages on the ‘828 Patent, I expect that I will be allowed to respond to those opinions.

<sup>42</sup> U.S. Patent No. 6,493,002 B1. [2.3]

<sup>43</sup> U.S. Patent No. 6,493,002 B1. [2.3]

<sup>44</sup> U.S. Patent No. 6,493,002 B1. [2.3]

The individual data display areas may be controlled through the use of controls and indicators on the control strip itself using cursor control keys.

**(2) 7,469,381 (“ ‘381 Patent”): List Scrolling and Document Translation, Scaling and Rotation on a Touch-Screen Display**

20. U.S. Patent number 7,469,381 was filed on December 14, 2007 and issued on December 23, 2008.<sup>45</sup> Bas Ording, the named inventor of the ‘381 Patent, assigned the patent to Apple Inc.<sup>46</sup>

21. The abstract of the ‘381 Patent is reproduced below:<sup>47</sup>

In accordance with some embodiments, a computer-implemented method for use in conjunction with a device with a touch screen display is disclosed. In the method, a movement of an object on or near the touch screen display is detected. In response to detecting the movement, an electronic document displayed on the touch screen display is translated in a first direction. If an edge of the electronic document is reached while translating the electronic document in the first direction while the object is still detected on or near the touch screen display, an area beyond the edge of the document is displayed. After the object is no longer detected on or near the touch screen display, the document is translated in a second direction until the area beyond the edge of the document is no longer displayed.

**(3) 7,853,891 (“ ‘891 Patent”): Method and Apparatus for Displaying a Window for a User Interface**

22. U.S. Patent number 7,853,891 was filed on February 1, 2008 and issued on December 14, 2010.<sup>48</sup> Imran Chaudhri and Bas Ording, the named inventors of the ‘891 Patent, assigned the patent to Apple Inc.<sup>49</sup>

23. The abstract of the ‘891 Patent is reproduced below:<sup>50</sup>

Methods and apparatuses to display windows. In more than one embodiments [sic] of the invention, a window is closed automatically (e.g., after a timer expires, or when a condition or criterion is met, or a system input is received) without user input. In some examples, the window is translucent so that the portion of another window, when present, is visible under the window. In some examples, the image of the window is faded

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<sup>45</sup> U.S. Patent No. 7,469,381 B2. [2.4]

<sup>46</sup> U.S. Patent No. 7,469,381 B2. [2.4]

<sup>47</sup> U.S. Patent No. 7,469,381 B2. [2.4]

<sup>48</sup> U.S. Patent No. 7,853,891 B2. [2.6]

<sup>49</sup> U.S. Patent No. 7,853,891 B2. [2.6]

<sup>50</sup> U.S. Patent No. 7,853,891 B2. [2.6]

out before the window is closed and destroyed. In some examples, the window does not close in response to any input from a user input device. In some examples, the window is repositioned (or hidden) automatically when another translucent window is displayed. The degree of translucency, the speed for fading out, the discrete levels of translucency for fading out, the time to expire, and/or other parameters for controlling the display of the window may be set by the user or adjusted by the system (or application software programs) automatically according to system conditions or other criteria.

**(4) 7,864,163 (“ ‘163 Patent”): Portable Electronic Device, Method, and Graphical User Interface for Displaying Structured Electronic Documents**

24. U.S. Patent number 7,864,163 was filed on September 4, 2007 and issued on January 4, 2011.<sup>51</sup> Bas Ording, Scott Forstall, Greg Christie, Stephen Lemay, Imran Chaudhri, Richard Williamson, Chris Blumenberg, and Marcel Van Os, the named inventors of the ‘163 Patent, assigned the patent to Apple Inc.<sup>52</sup>

25. The abstract of the ‘163 Patent is reproduced below:<sup>53</sup>

A computer-implemented method, for use in conjunction with a portable electronic device with a touch screen display, comprises 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, and detecting a first gesture at a location on the displayed portion of the structured electronic document. A first box in the plurality of boxes at the location of the first gesture is determined. The first box on the touch screen display is enlarged and substantially centered.

**b) Touchscreen-Related Utility Patents**

**(1) 7,844,915 (“ ‘915 Patent”): Application Programming Interfaces for Scrolling Operations**

26. U.S. Patent number 7,844,915 was filed on January 7, 2007 and issued on November 30, 2010.<sup>54</sup> Andrew Platzer and Scott Herz, the named inventors of the ‘915 Patent, assigned the patent to Apple Inc.<sup>55</sup>

<sup>51</sup> U.S. Patent No. 7,864,163. [2.8]

<sup>52</sup> U.S. Patent No. 7,864,163. [2.8]

<sup>53</sup> U.S. Patent No. 7,864,163. [2.8]

<sup>54</sup> U.S. Patent No. 7,844,915 B2. [2.5]

<sup>55</sup> U.S. Patent No. 7,844,915 B2. [2.5]

27. The abstract of the ‘915 Patent is reproduced below:<sup>56</sup>

At least certain embodiments of the present disclosure include an environment with user interface software interacting with a software application. A method for operating through an application programming interface (API) in this environment includes transferring a set bounce call. The method further includes setting at least one of maximum and minimum bounce values. The set bounce call causes a bounce of a scrolled region in an opposite direction of a scroll based on a region past an edge of the scrolled region being visible in a display region at the end of the scroll.

**(2) 7,663,607 (“ ‘607 Patent”): Multipoint Touchscreen**

28. U.S. Patent number 7,663,607 B2 was filed on May 6, 2004 and issued on February 16, 2010.<sup>57</sup> Steven Hotelling, Joshua Strickon, and Brian Huppi, the named inventors of the ‘607 Patent, assigned the patent to Apple Inc.<sup>58</sup>

29. The abstract of the ‘607 Patent is reproduced below:<sup>59</sup>

A touch panel having a transparent capacitive sensing medium configured to detect multiple touches or near touches that occur at the same time and at distinct locations in the plane of the touch panel and to produce distinct signals representative of the location of the touches on the plane of the touch panel for each of the multiple touches is disclosed.

**(3) 7,920,129 (“ ‘129 Patent”): Double-Sided Touch-Sensitive Panel with Shield and Drive Combined Layer**

30. U.S. Patent number 7,920,129 was filed on January 3, 2007 and issued on April 5, 2011.<sup>60</sup> Steve Hotelling and Brian Land, the named inventors of the ‘129 Patent, assigned the patent to Apple Inc.<sup>61</sup>

31. The abstract of the ‘129 Patent is reproduced below:<sup>62</sup>

A multi-touch capacitive touch sensor panel can be created using a substrate with column and row traces formed on either side of the substrate. To shield the column (sense) traces from the effects of capacitive coupling from a modulated Vcom layer in an adjacent liquid

<sup>56</sup> U.S. Patent No. 7,844,915 B2. [2.5]

<sup>57</sup> U.S. Patent No. 7,663,607 B2. [2.7]

<sup>58</sup> U.S. Patent No. 7,663,607 B2. [2.7]

<sup>59</sup> U.S. Patent No. 7,663,607 B2. [2.7]

<sup>60</sup> U.S. Patent No. 7,920,129 B2. [2.9]

<sup>61</sup> U.S. Patent No. 7,920,129 B2. [2.9]

<sup>62</sup> U.S. Patent No. 7,920,129 B2. [2.9]

crystal display (LCD) or any source of capacitive coupling, the row traces can be widened to shield the column traces, and the row traces can be placed closer to the LCD. In particular, the rows can be widened so that there is spacing of about 30 microns between adjacent row traces. In this manner, the row traces can serve the dual functions of driving the touch sensor panel, and also the function of shielding the more sensitive column (sense) traces from the effects of capacitive coupling.

## **2. Apple’s Design Patents**

32. Apple has asserted seven design patents against Samsung. For the purposes of my discussion in this report, I have grouped together the design patents addressing the graphical user interface (“UI Design Patents”) and the design patents addressing elements of the appearance of electronic devices (“Electronic Device Design Patents”).

### **a) UI Design Patents**

#### **(1) D627,790 (“ ‘D790 Patent”): Graphical User Interface For a Display Screen or Portion Thereof**

33. U.S. Design Patent number D627,790 was filed on August 20, 2007 and issued on November 23, 2010.<sup>63</sup> Imran Chaudhri, the named inventor of the ‘D790 Patent, assigned the patent to Apple Inc.<sup>64</sup>

34. The ‘D790 Patent claims “[t]he ornamental design for a graphical user interface for a display screen or portion thereof, as shown and described.”<sup>65</sup> The patent includes one drawing sheet, the figure of which is reproduced below.

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<sup>63</sup> U.S. Design Patent No. D627,790 S. [2.10]

<sup>64</sup> U.S. Design Patent No. D627,790 S. [2.10]

<sup>65</sup> U.S. Design Patent No. D627,790 S. [2.10]



**Figure 1: ‘D790 Patent Drawing Sheet<sup>66</sup>**



35. The ‘D790 Patent explains that “[t]he FIGURE is a front view of a graphical user interface for a display screen or portion thereof showing [a] new design. The broken lines of the display screen or portion thereof and other elements form no part of the claimed design.”<sup>67</sup>

**(2) D617,334 (“ ‘D334 Patent”): Graphical User Interface For a Display Screen or Portion Thereof**

36. U.S. Design Patent number D617,334 was filed on July 15, 2008 and issued on June 8, 2010.<sup>68</sup> Imran Chaudhri, the named inventor of the ‘D334 Patent, assigned the patent to Apple Inc.<sup>69</sup>

37. The ‘D334 Patent claims “[t]he ornamental design for a graphical user interface for a display screen or portion thereof, as shown and described.”<sup>70</sup> The patent includes eight drawing sheets, which are substantially similar to the first drawing sheet, the figure of which is reproduced below.

<sup>66</sup> U.S. Design Patent No. D627,790 S. [2.10]

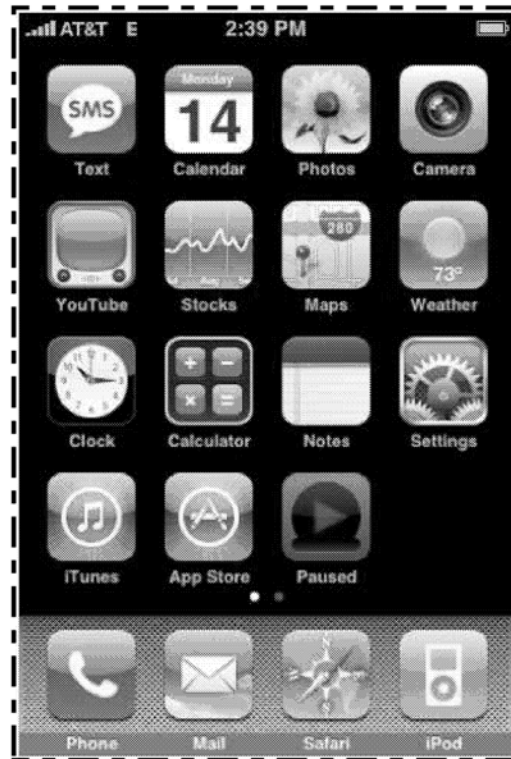
<sup>67</sup> U.S. Design Patent No. D627,790 S. [2.10]

<sup>68</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>69</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>70</sup> U.S. Design Patent No. D617,334 S. [2.11]

**Figure 2: 'D334 Drawing Sheet 1<sup>71</sup> ("a front view of a graphical user interface for a display screen or portion thereof ..."<sup>72</sup>)**



38. The other figures included in the 'D334 Patent show front views of different embodiments of the design.<sup>73</sup> In these figures, "[t]he broken line showing of the display screen or portion thereof ... is not part of the claimed design."<sup>74</sup>

39. The patent also notes that<sup>75</sup>

The AT&T trademark in the upper left corner of the Figure[s] is the property of AT&T Intellectual Property II, L.P. The YouTube trademark on the left hand side of the Figures is the property of Google Inc. The iTunes trademark on the left hand side of the Figures is the property of Apple Inc. The App Store trademark on the bottom of the Figures is the property of Apple Inc. The Safari trademark on the bottom of the Figures is the property of Apple Inc. The iPod trademark on the bottom right corner of the Figures is the property of Apple Inc. Trademarks are the property of their respective owners.

<sup>71</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>72</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>73</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>74</sup> U.S. Design Patent No. D617,334 S. [2.11]

<sup>75</sup> U.S. Design Patent No. D617,334 S. [2.11]

**(3) D604,305 (“ ‘D305 Patent”): Graphical User Interface For a Display Screen or Portion Thereof**

40. U.S. Design Patent number D604,305 was filed on July 23, 2007 and issued on November 17, 2009.<sup>76</sup> Freddy Anzures and Imran Chaudhri, the named inventors of the ‘D305 Patent, assigned the patent to Apple Inc.<sup>77</sup>

41. The ‘D305 Patent claims “[t]he ornamental design for a graphical user interface for a display screen or portion thereof, as shown and described.”<sup>78</sup> The patent includes two drawing sheets, which are substantially similar to the first drawing sheet, the figure of which is reproduced below. Note that one of these drawing sheets was filed in color.<sup>79</sup>

**Figure 3: ‘D305 Patent Drawing Sheet 1<sup>80</sup> (“a front view of a graphical user interface for a display screen or portion thereof ...”<sup>81</sup>)**



<sup>76</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>77</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>78</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>79</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>80</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>81</sup> U.S. Design Patent No. D604,305 S. [2.12]

42. The other drawing sheet shows the front view of a second embodiment of the design.<sup>82</sup> Furthermore, “[t]he broken line showing of a display screen in both views forms no part of the claimed design.”<sup>83</sup>

**b) Electronic Device Design Patents**

**(1) D593,087 (“ ‘D087 Patent”): Electronic Device**

43. U.S. Design Patent number D593,087 was filed on July 30, 2007 and issued on May 26, 2009.<sup>84</sup> The inventors of the ‘D087 Patent, Bartley Andre et al., assigned the patent to Apple Inc.<sup>85</sup>

44. The ‘D087 Patent claims “[t]he ornamental design of an electronic device, substantially as shown and described.”<sup>86</sup> The patent includes twelve drawing sheets and 48 figures, which are similar to figures one through eight reproduced below.

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<sup>82</sup> U.S. Design Patent No. D604,305 S. [2.12]

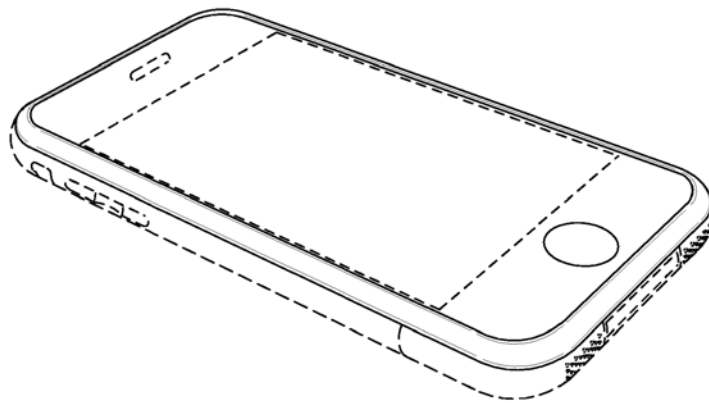
<sup>83</sup> U.S. Design Patent No. D604,305 S. [2.12]

<sup>84</sup> U.S. Design Patent No. D593,087 S. [2.13]

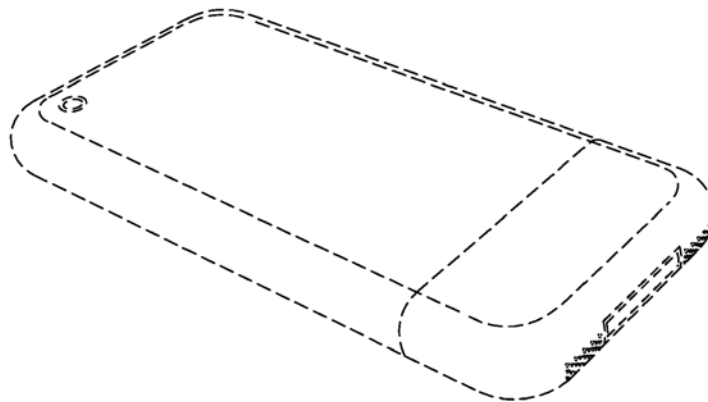
<sup>85</sup> U.S. Design Patent No. D593,087 S. [2.13]

<sup>86</sup> U.S. Design Patent No. D593,087 S. [2.13]

**Figure 4:** ‘D087 Patent Figures 1 and 2<sup>87</sup> (“a front perspective view of an electronic device ...” and “a rear perspective view of the electronic device ...”<sup>88</sup>)



**FIG. 1**

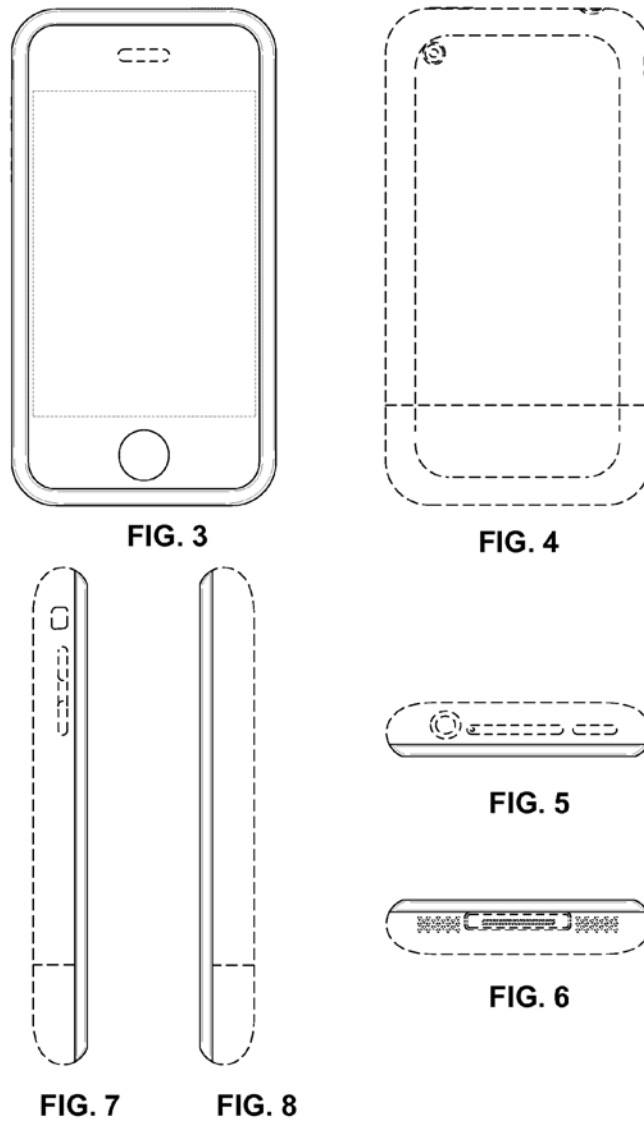


**FIG. 2**

<sup>87</sup> U.S. Design Patent No. D593,087 S, Sheet 1. [2.13]

<sup>88</sup> U.S. Design Patent No. D593,087 S, p. 2. [2.13]

**Figure 5:** 'D087 Patent Figures 3 through 8<sup>89</sup> (“a front view thereof,” “a rear view thereof,” “a top view thereof,” “a bottom view thereof,” “a left side view thereof,” “a right side view thereof,”<sup>90</sup>)



45. The 'D087 Patent explains that “[n]one of the broken lines form a part of the claimed design.”<sup>91</sup> The patent explains further that<sup>92</sup>

The broken lines showing the remainder of the electronic device are directed to environment. The broken lines, within the claimed design, in embodiments 1, 2, and 4 that depict an elongated oval shape and the

<sup>89</sup> U.S. Design Patent No. D593,087 S, Sheet 2. [2.13]

<sup>90</sup> U.S. Design Patent No. D593,087 S, p. 2. [2.13]

<sup>91</sup> U.S. Design Patent No. D593,087 S, p. 3. [2.13]

<sup>92</sup> U.S. Design Patent No. D593,087 S, p. 3. [2.13]

broken lines, within the claimed design, in embodiments 2, 3, and 6 that depict a circle shape are superimposed on a continuous surface and are for illustrative purposes only. The broken lines, within the claimed design, in embodiments 1, 3, and 5 that depict a large rectangular shape, indicate a non claimed shape below the continuous front surface and are for illustrative purposes only.

**(2) D618,677 (“ ‘D677 Patent”): Electronic Device**

46. U.S. Design Patent number D618,677 was filed on November 18, 2008 and issued on June 29, 2010.<sup>93</sup> The inventors of the ‘D677 Patent, Bartley Andre et al., assigned the patent to Apple Inc.<sup>94</sup>

47. The ‘D677 Patent claims “[t]he ornamental design of an electronic device, as shown and described.”<sup>95</sup> The patent includes two drawing sheets and eight figures, all of which are reproduced below.

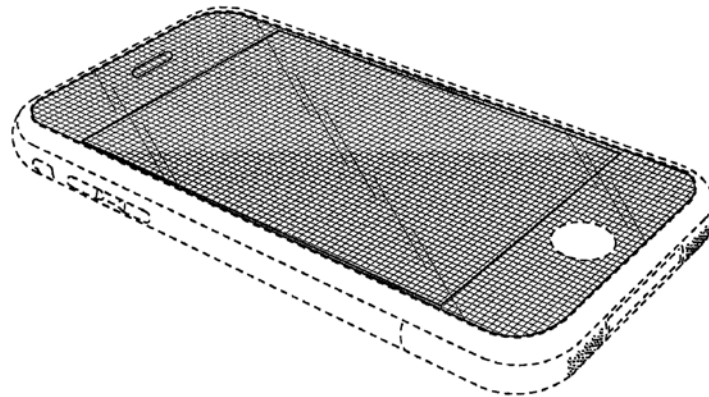
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<sup>93</sup> U.S. Design Patent No. D618,677 S. [2.14]

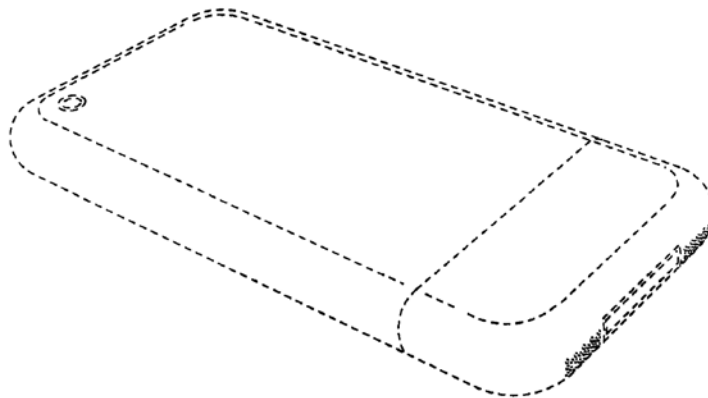
<sup>94</sup> U.S. Design Patent No. D618,677 S. [2.14]

<sup>95</sup> U.S. Design Patent No. D618,677 S. [2.14]

**Figure 6:** ‘D677 Patent Figures 1 and 2<sup>96</sup> (“a front perspective view of an electronic device ...” and “a rear perspective view thereof”<sup>97</sup>)



**FIG. 1**



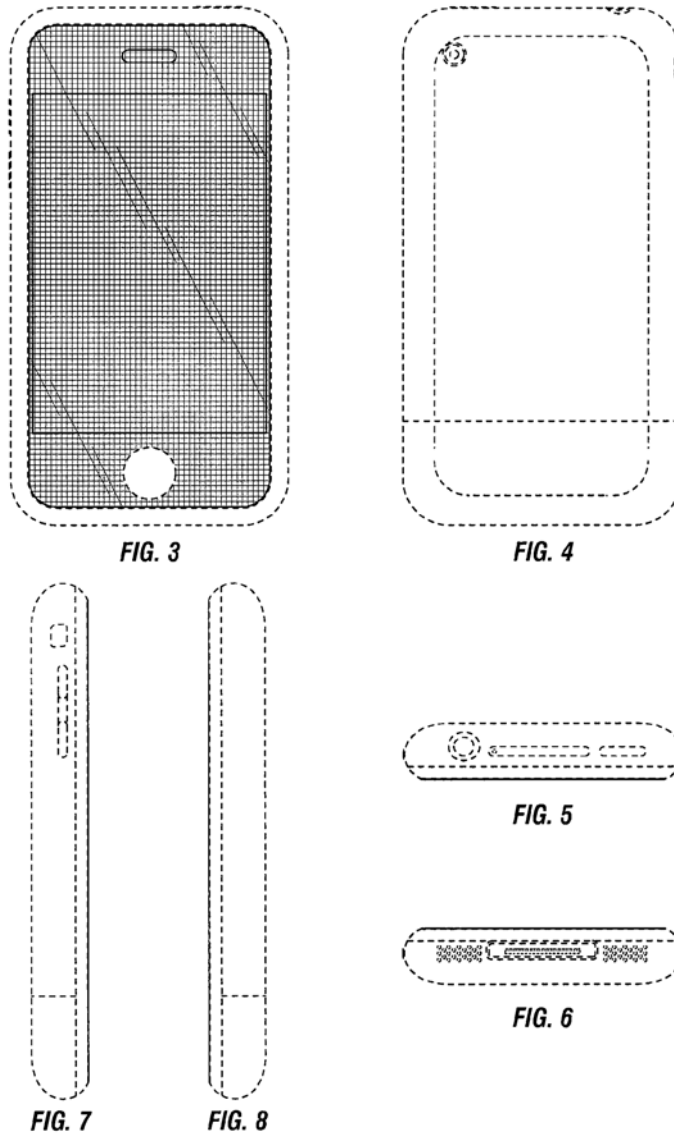
**FIG. 2**

<sup>96</sup> U.S. Design Patent No. D618,677 S, Sheet 1. [2.14]

<sup>97</sup> U.S. Design Patent No. D618,677 S. [2.14]



**Figure 7:** 'D677 Patent Figures 3 through 8<sup>98</sup> (“a front view thereof,” “a rear view thereof,” “a top view thereof,” “a bottom view thereof,” “a left side view thereof,” and “a right side view thereof”<sup>99</sup>)



48. The 'D677 Patent notes that “[t]he claimed surface of the electronic device is illustrated with the color designation for the color black.”<sup>100</sup> For clarification, the 'D677 Patent states that “the article of manufacture to which the ornamental design has been applied is an electronic device, media player (e.g., music, video and/or game player), media storage device, a

<sup>98</sup> U.S. Design Patent No. D618,677 S, Sheet 2. [2.14]

<sup>99</sup> U.S. Design Patent No. D618,677 S. [2.14]

<sup>100</sup> U.S. Design Patent No. D618,677 S. [2.14]

personal digital assistant, a communication device (e.g., cellular phone), a novelty item or toy.”<sup>101</sup> Furthermore, “[t]he electronic device is not limited to the scale shown ...”<sup>102</sup>

### **(3) D622,270 (“ ‘D270 Patent’”): Electronic Device**

49. U.S. Design Patent number D622,270 was filed on October 1, 2009 and issued on August 24, 2010.<sup>103</sup> The inventors of the ‘D270 Patent, Bartley Andre et al., assigned the patent to Apple Inc.<sup>104</sup>

50. The ‘D270 Patent claims “[t]he ornamental design for an electronic device, as shown and described.”<sup>105</sup> The patent includes five drawing sheets and nine figures, all of which are reproduced below.

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<sup>101</sup> U.S. Design Patent No. D618,677 S. [2.14]

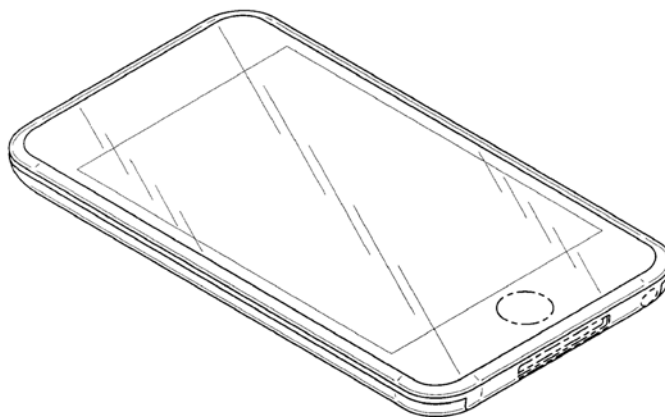
<sup>102</sup> U.S. Design Patent No. D618,677 S. [2.14]

<sup>103</sup> U.S. Design Patent No. D622,270 S. [2.15]

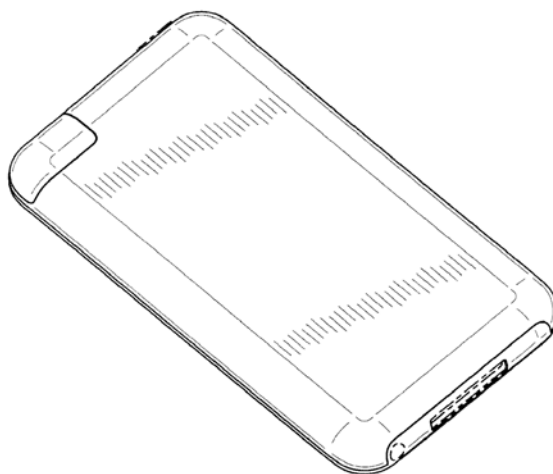
<sup>104</sup> U.S. Design Patent No. D622,270 S. [2.15]

<sup>105</sup> U.S. Design Patent No. D622,270 S. [2.15]

**Figure 8: ‘D270 Patent Figures 1 and 2<sup>106</sup> (“a front perspective view of an electronic device ...” and “a rear perspective thereof”<sup>107</sup>)**



**FIG. 1**

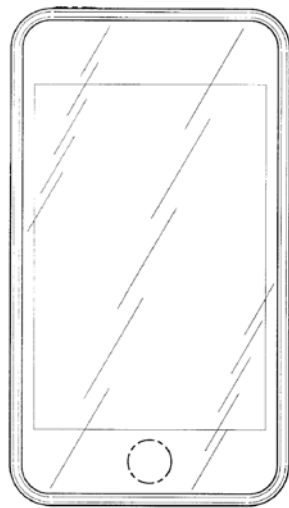


**FIG. 2**

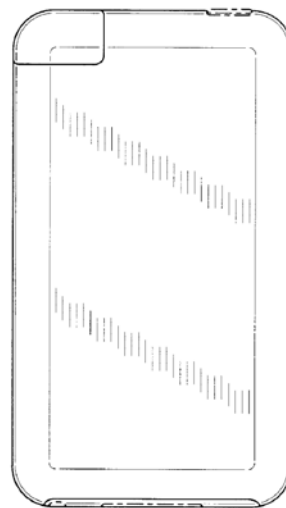
<sup>106</sup> U.S. Design Patent No. D622,270 S, Sheet 1. [2.15]

<sup>107</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

**Figure 9: ‘D270 Patent Figures 3 and 4<sup>108</sup> (“a front view thereof” and “a rear view thereof”<sup>109</sup>)**



**FIG. 3**



**FIG. 4**

**Figure 10: ‘D270 Patent Figures 5 and 6<sup>110</sup> (“a left side view thereof” and “a right side view thereof”<sup>111</sup>)**



**FIG. 5**



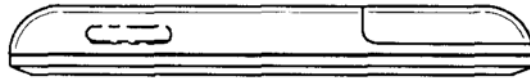
**FIG. 6**

<sup>108</sup> U.S. Design Patent No. D622,270 S, Sheet 2. [2.15]

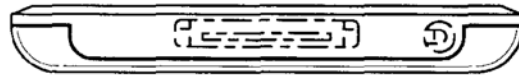
<sup>109</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

<sup>110</sup> U.S. Design Patent No. D622,270 S, Sheet 3. [2.15]

**Figure 11: 'D270 Patent Figures 7 and 8<sup>112</sup> ("a top plan view thereof" and "a bottom plan view thereof"<sup>113</sup>)**

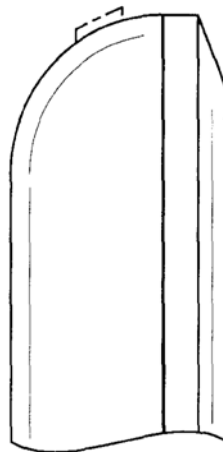


**FIG. 7**



**FIG. 8**

**Figure 12: 'D270 Patent Figure 9<sup>114</sup> ("an enlarged elevational view of a representative corner of the electronic device"<sup>115</sup>)**



**FIG. 9**

51. The 'D270 Patent explains that "[t]he broken lines show portions of the electronic device which form no part of the claimed design."<sup>116</sup>

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<sup>111</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

<sup>112</sup> U.S. Design Patent No. D622,270 S, Sheet 4. [2.15]

<sup>113</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

<sup>114</sup> U.S. Design Patent No. D622,270 S, Sheet 5. [2.15]

<sup>115</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

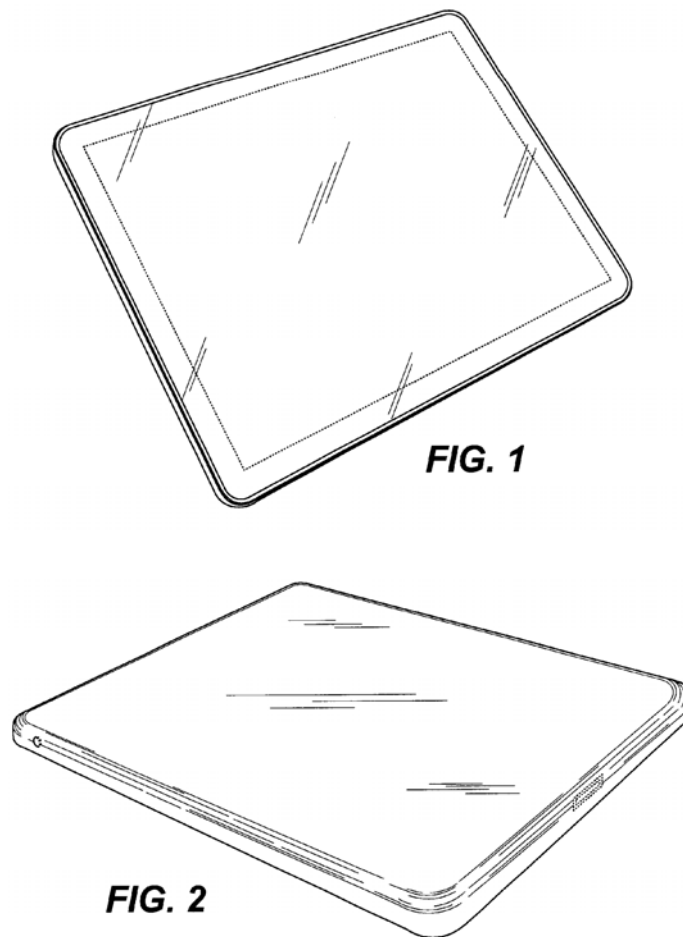
<sup>116</sup> U.S. Design Patent No. D622,270 S, p. 2. [2.15]

**(4) D504,889 (“ ‘D889 Patent”): Electronic Device**

52. U.S. Design Patent number D504,889 was filed on March 17, 2004 and issued on May 10, 2005.<sup>117</sup> The inventors of the ‘D889 Patent, Bartley Andre et al., assigned the patent to Apple Computer, Inc.<sup>118</sup>

53. The ‘D889 Patent claims “[t]he ornamental design of an electronic device, substantially as shown and described.”<sup>119</sup> The patent includes four drawing sheets and nine figures, all of which are reproduced below.

**Figure 13: ‘D889 Patent Figures 1 and 2<sup>120</sup> (“a top perspective view of an electronic device ...” and “a bottom perspective view thereof”<sup>121</sup>)**



<sup>117</sup> U.S. Design Patent No. D504,889 S. [2.16]

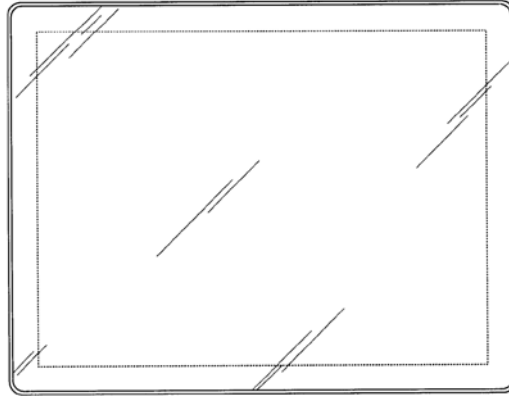
<sup>118</sup> U.S. Design Patent No. D504,889 S. [2.16]

<sup>119</sup> U.S. Design Patent No. D504,889 S. [2.16]

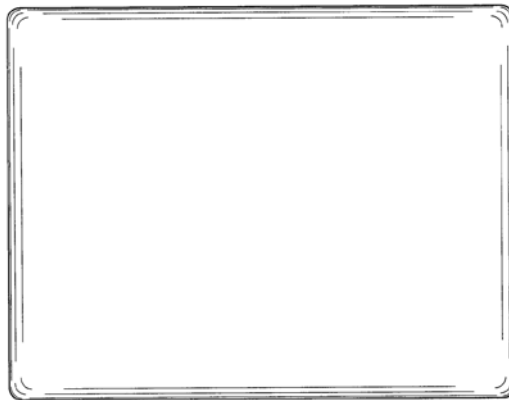
<sup>120</sup> U.S. Design Patent No. D504,889 S, Sheet 1. [2.16]

<sup>121</sup> U.S. Design Patent No. D504,889 S. [2.16]

**Figure 14: ‘D889 Patent Figures 3 and 4<sup>122</sup> (“a top view thereof” and “a bottom view thereof”<sup>123</sup>)**



**FIG. 3**



**FIG. 4**

<sup>122</sup> U.S. Design Patent No. D504,889 S, Sheet 2. [2.16]

<sup>123</sup> U.S. Design Patent No. D504,889 S. [2.16]

Figure 15: 'D889 Patent Figures 5 through 8<sup>124</sup> ("a left side view thereof," "a right side view thereof," "an upper side view thereof," and "a lower side view thereof"<sup>125</sup>)



**FIG. 5**



**FIG. 6**



**FIG. 7**



**FIG. 8**

<sup>124</sup> U.S. Design Patent No. D504,889 S, Sheet 3. [2.16]

<sup>125</sup> U.S. Design Patent No. D504,889 S. [2.16]



**Figure 16: ‘D889 Patent Figure 9<sup>126</sup> (“an exemplary diagram of the use of the electronic device thereof the broken lines being shown for illustrative puposes [sic] only and form no part of the claimed design”<sup>127</sup>)**



**FIG. 9**

### **3. Apple’s Trade Dress at Issue**

54. Apple Inc.’s Objections and Responses to Samsung Electronics Co., Ltd.’s First Set of Interrogatories to Apple Inc. [REDACTED]<sup>28</sup> Apple alleges that certain of Samsung’s products use this trade dress.<sup>129</sup> Descriptions of the Apple trade dress claims at issue in this matter are provided below.

#### **a) Original iPhone Trade Dress**

<sup>126</sup> U.S. Design Patent No. D504,889 S, Sheet 4. [2.16]

<sup>127</sup> U.S. Design Patent No. D504,889 S. [2.16]

<sup>128</sup> Apple Inc.’s Objections and Responses to Samsung Electronics Co., Ltd.’s First Set of Interrogatories to Apple Inc., September 12, 2011, pp. 1-3. [2.17]

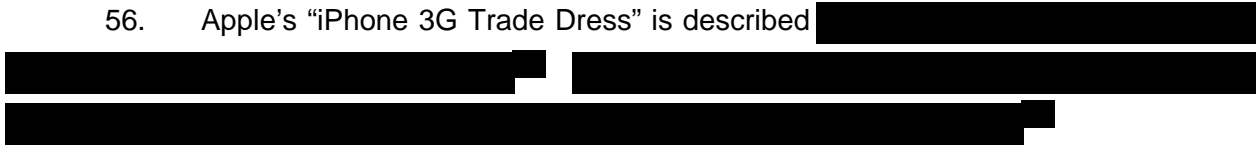
<sup>129</sup> Apple Inc.’s Objections and Responses to Samsung Electronics Co., Ltd.’s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 20. [2.17]

55. According to Apple, the phrase “Original iPhone Trade Dress” refers to specific elements of Apple’s product design. Those elements are:<sup>130</sup>



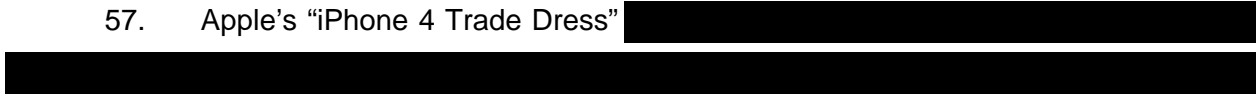
**b) iPhone 3G Trade Dress**

56. Apple’s “iPhone 3G Trade Dress” is described



**c) iPhone 4 Trade Dress**

57. Apple’s “iPhone 4 Trade Dress”



Apple’s definition of its “iPhone 4 Trade Dress” is reproduced below.<sup>133</sup>



<sup>130</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, pp. 1-2. [2.17]

<sup>131</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 2. [2.17]

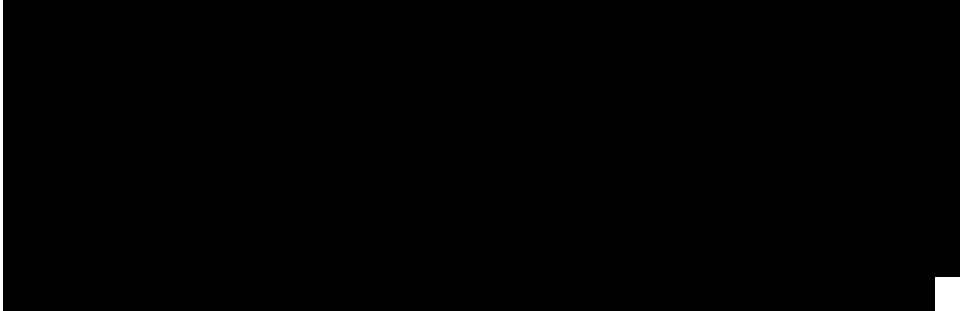
<sup>132</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 2. [2.17]

<sup>133</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 2. [2.17]

**d) iPhone Trade Dress**

58. Apple's "iPhone Trade Dress" [REDACTED]

[REDACTED] Apple's description follows.<sup>134</sup>



**e) Trade Dress Registrations**

59. In this matter, Apple has accused certain Samsung products of using three Apple U.S. trade dress registrations: 3,470,983; 3,457,218; 3,475,327.<sup>135</sup>

60. Apple's Amended Complaint notes that "U.S. Registration 3,470,983 is for the overall design of the product, including the rectangular shape, the evenly rounded corners, the silver edges, the black face, and the display of sixteen colorful icons."<sup>136</sup> The description of this trade dress claim, maintained on the U.S. Patent and Trademark Office website, states that "[t]he mark consists of the configuration of a rectangular handheld mobile digital electronic device with rounded silver edges, a black face, and an array of 16 square icons with rounded edges."<sup>137</sup> The description goes further to describe the orientation of the icons ("[t]he top 12 icons appear on a black background, and the bottom 4 appear on a silver background") as well as what each icon depicts.<sup>138</sup> "The color(s) black, blue, brown, brown-gray, gray-green, green, orange, red, silver, tan, white and yellow is/are claimed as a feature of the mark."<sup>139</sup> This registration was filed October 12, 2007, published for opposition May 6, 2008, and registered July 22, 2008.<sup>140</sup>

<sup>134</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, pp. 2-3. [2.17]

<sup>135</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, pp. 3, 20. [2.17]

<sup>136</sup> Apple Inc.'s Amended Complaint, June 16, 2011, p. 41. [2.1]

<sup>137</sup> U.S. Registration Number 3,470,983, July 22, 2008, <<http://tess2.uspto.gov>>. [2.18]

<sup>138</sup> U.S. Registration Number 3,470,983, July 22, 2008, <<http://tess2.uspto.gov>>. [2.18]

<sup>139</sup> U.S. Registration Number 3,470,983, July 22, 2008, <<http://tess2.uspto.gov>>. [2.18]

<sup>140</sup> U.S. Registration Number 3,470,983, July 22, 2008, <<http://tess2.uspto.gov>>. [2.18]

61. U.S. Registration 3,470,983 also includes the following image, which appears to be a photo of the front view of the original iPhone.<sup>141</sup>



62. Apple's Amended Complaint explains that "U.S. Registration 3,457,218 is for the configuration of a rectangular handheld mobile digital electronic device with rounded corners."<sup>142</sup> The description of this registration available on the USPTO's website notes simply that "[t]he mark consists of the configuration of a rectangular handheld mobile digital electronic device with rounded corners."<sup>143</sup> Color is not claimed as part of the registration.<sup>144</sup> U.S. Registration 3,457,218 was filed October 12, 2007, published for opposition April 15, 2008, and registered July 1, 2008.<sup>145</sup>

63. The following image was provided as part of U.S. Registration Number 3,457,218.<sup>146</sup>



64. Finally, Apple describes that "U.S Registration 3,475,327 is for a rectangular handheld mobile digital electronic device with a gray rectangular portion in the center, a black band above and below the gray rectangle and on the curved corners, and a silver outer border

<sup>141</sup> U.S. Registration Number 3,470,983, July 22, 2008, <<http://tess2.uspto.gov>>. [2.18]

<sup>142</sup> Apple Inc.'s Amended Complaint, June 16, 2011, p. 41. [2.1]

<sup>143</sup> U.S. Registration Number 3,457,218, July 1, 2008, <<http://tess2.uspto.gov>>. [2.19]

<sup>144</sup> U.S. Registration Number 3,457,218, July 1, 2008, <<http://tess2.uspto.gov>>. [2.19]

<sup>145</sup> U.S. Registration Number 3,457,218, July 1, 2008, <<http://tess2.uspto.gov>>. [2.19]

<sup>146</sup> U.S. Registration Number 3,457,218, July 1, 2008, <<http://tess2.uspto.gov>>. [2.19]

and side.”<sup>147</sup> The USPTO’s description states that “[t]he mark consists of the configuration of a handheld mobile digital electronic device.”<sup>148</sup> Specifically, this registration describes the placement of the colors on the outer surface of the device: “[t]he color gray appears as a rectangle at the front, center of the device. The color black appears on the front of the device above and below the gray rectangle and on the curved corners of the device. The color silver appears as the outer border and sides of the device.”<sup>149</sup> As the description suggests, “[t]he color(s) gray, silver and black is/are claimed as a feature of the mark.”<sup>150</sup> This trade dress was filed October 12, 2007, published for opposition May 13, 2008, and registered July 29, 2008.<sup>151</sup>

65. The following image was included with the registration.<sup>152</sup>



**f) 85/299,118 Trade Dress Application**

66. Apple’s Amended Complaint explains that “U.S. Application Serial No. 85/299,118 is for the configuration of a rectangular handheld mobile digital electronic device with evenly rounded corners — the iPhone 4.”<sup>153</sup> The USPTO’s description of the mark, which was filed April 19, 2011, explains that color is not a claimed feature.<sup>154</sup> “The mark consists of the configuration of a rectangular handheld mobile digital electronic device with rounded corners and a circular convex indentation containing the outline of a square with round corners.”<sup>155</sup>

67. The application includes the following image.<sup>156</sup>

<sup>147</sup> Apple Inc.’s Amended Complaint, June 16, 2011, p. 41. [2.1]

<sup>148</sup> U.S. Registration Number 3,475,327, July 29, 2008, <<http://tess2.uspto.gov>>. [2.20]

<sup>149</sup> U.S. Registration Number 3,475,327, July 29, 2008, <<http://tess2.uspto.gov>>. [2.20]

<sup>150</sup> U.S. Registration Number 3,475,327, July 29, 2008, <<http://tess2.uspto.gov>>. [2.20]

<sup>151</sup> U.S. Registration Number 3,475,327, July 29, 2008, <<http://tess2.uspto.gov>>. [2.20]

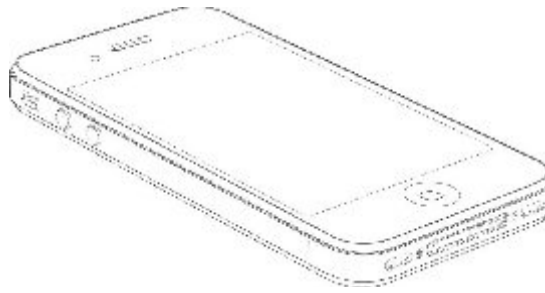
<sup>152</sup> U.S. Registration Number 3,475,327, July 29, 2008, <<http://tess2.uspto.gov>>. [2.20]

<sup>153</sup> Apple Inc.’s Amended Complaint, June 16, 2011, p. 17. [2.1]

<sup>154</sup> U.S. Application Serial Number 85/299,118, April 19, 2011, <<http://tess2.uspto.gov>>. [2.21]

<sup>155</sup> U.S. Application Serial Number 85/299,118, April 19, 2011, <<http://tess2.uspto.gov>>. [2.21]

<sup>156</sup> U.S. Application Serial Number 85/299,118, April 19, 2011, <<http://tess2.uspto.gov>>. [2.21]



**g) iPad and iPad 2 Trade Dress**

68. Though defined separately in Apple's Objections and Responses to Samsung's First Set of Interrogatories, the iPad and iPad 2 trade dress contains the same elements. Those elements are as follows.<sup>157</sup>

a rectangular product with four evenly rounded corners; a flat clear surface covering the front of the product; the appearance of a metallic rim around the flat clear surface; a display screen under the clear surface; under the clear surface, substantial neutral (black or white) borders on all sides of the display screen; and when the device is on, a matrix of colorful square icons with evenly rounded corners within the display screen.

**h) 77/921,838, 77/921,829, and 77/921,869 Trade Dress Applications**

69. Apple's Amended Complaint describes that "U.S. Application Serial No. 77/921,838 is for the configuration of a digital electronic device with a screen on the front of the device, and a circle at the bottom center of the front — the iPad."<sup>158</sup> Like Application 85/299,118, this application's description does not claim color.<sup>159</sup> "The mark consists of a configuration of a digital electronic device with a screen on the front of the device, and a circle at the bottom center of the front."<sup>160</sup> This application was filed January 27, 2010.<sup>161</sup>

70. The following image is included.<sup>162</sup>

<sup>157</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 3. [2.17]

<sup>158</sup> Apple Inc.'s Amended Complaint, June 16, 2011, p. 17. [2.1]

<sup>159</sup> U.S. Application Serial Number 77/921,838, January 27, 2010, <<http://tess2.uspto.gov>>. [2.22]

<sup>160</sup> U.S. Application Serial Number 77/921,838, January 27, 2010, <<http://tess2.uspto.gov>>. [2.22]

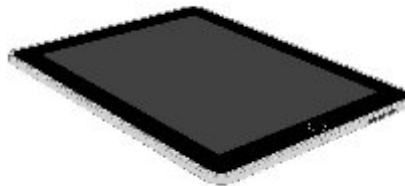
<sup>161</sup> U.S. Application Serial Number 77/921,838, January 27, 2010, <<http://tess2.uspto.gov>>. [2.22]

<sup>162</sup> U.S. Application Serial Number 77/921,838, January 27, 2010, <<http://tess2.uspto.gov>>. [2.22]



71. Apple’s “U.S. Application Serial Number 77/921,829 is for a configuration of a digital electronic device, with a gray screen, a black border around the screen, a black concave circle at the bottom of the border, and silver sides — also the iPad.”<sup>163</sup> The description of the application, which was filed on January 27, 2010, notes that “[t]he color(s) black, silver, gray and white is/are claimed as a feature of the mark.”<sup>164</sup> “The mark consists of a configuration of a digital electronic device, with a gray screen, a black border around the screen, and a black concave circle at the bottom of the border. The sides of the device are silver.”<sup>165</sup>

72. The image below is included.<sup>166</sup>



73. Finally, Apple’s “U.S. Application Serial No. 77/921,869 is for the overall design of the product, including a black screen and silver casing, with thirteen colorful square icons arranged in four rows on the face of the screen, and a concave black circle with the outline of a gray square in the center below the bottom row of icons — again, the iPad.”<sup>167</sup> This application, filed January 27, 2010, describes that “[t]he mark consists of a configuration of a digital electronic device with a black screen and silver casing. There are thirteen icons consisting of squares with rounded edges arranged in four rows on the face of the screen.”<sup>168</sup> The application goes on to describe each icon as well as noting that “[b]elow the bottom row of icons

<sup>163</sup> Apple Inc.’s Amended Complaint, June 16, 2011, p. 17. [2.1]

<sup>164</sup> U.S. Application Serial Number 77/921,829, January 27, 2010, <<http://tess2.uspto.gov>>. [2.23]

<sup>165</sup> U.S. Application Serial Number 77/921,829, January 27, 2010, <<http://tess2.uspto.gov>>. [2.23]

<sup>166</sup> U.S. Application Serial Number 77/921,829, January 27, 2010, <<http://tess2.uspto.gov>>. [2.23]

<sup>167</sup> Apple Inc.’s Amended Complaint, June 16, 2011, p. 17. [2.1]

is a concave black and gray circle with the outline of a gray square in the center.”<sup>169</sup> Further, the colors black, silver, white, red, orange, brown, yellow, blue, gray, dark gray, purple, and green are claimed.<sup>170</sup>

74. The application displays the image below.<sup>171</sup>



#### **4. Apple's Trademarks at Issue**

75. Apple asserts three sets of trademarks against Samsung's accused products: the Registered Icon Trademarks, the iTunes Store Trademark, and the iTunes Eighth Note and CD Design Trademark.<sup>172</sup> Each of these sets is described below.

##### **a) Registered Icon Trademarks**

76. Apple's Registered Icon Trademarks include "the marks shown in U.S. Registration Nos. 3,886,196; 3,889,642; 3,886,200; 3,889,685; 3,886,169; and 3,886,197."<sup>173</sup> These Registered Icon Trademarks are displayed below. Underneath each icon is the icon's filing date ("Filed"), date on which the application was published for opposition ("Pub."), and the registration date ("Reg.").

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<sup>168</sup> U.S. Application Serial Number 77/921,869, January 27, 2010, <<http://tess2.uspto.gov>>. [2.24]

<sup>169</sup> U.S. Application Serial Number 77/921,869, January 27, 2010, <<http://tess2.uspto.gov>>. [2.24]

<sup>170</sup> U.S. Application Serial Number 77/921,869, January 27, 2010, <<http://tess2.uspto.gov>>. [2.24]

<sup>171</sup> U.S. Application Serial Number 77/921,869, January 27, 2010, <<http://tess2.uspto.gov>>. [2.24]

<sup>172</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 20. [2.17]

<sup>173</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 3. [2.17]



**No. 3,886,196<sup>174</sup>**



Filed: April 21, 2010  
Pub.: September 21, 2010  
Reg.: December 7, 2010

**No. 3,889,642<sup>175</sup>**



Filed: April 21, 2010  
Pub.: September 28, 2010  
Reg.: December 14, 2010

**No. 3,886,200<sup>176</sup>**



Filed: April 21, 2010  
Pub.: September 21, 2010  
Reg.: December 7, 2010

**No. 3,889,685<sup>177</sup>**



Filed: April 21, 2010  
Pub.: September 28, 2010  
Reg.: December 14, 2010

**No. 3,886,169<sup>178</sup>**



Filed: April 21, 2010  
Pub.: September 21, 2010  
Reg.: December 7, 2010

**No. 3,886,197<sup>179</sup>**



Filed: April 21, 2010  
Pub.: September 21, 2010  
Reg.: December 7, 2010

## **b) iTunes Store Trademark**

77. The Purple iTunes Store Trademark refers to “the mark shown in U.S. Application Serial No. 85/041,463.”<sup>180</sup> This application was filed on May 18, 2010 and published for opposition on April 19, 2011.<sup>181</sup> This icon is pictured below.<sup>182</sup>

<sup>174</sup> U.S. Registration Number 3,886,196, December 7, 2010, <<http://tess2.uspto.gov>>. [2.25]

<sup>175</sup> U.S. Registration Number 3,889,642, December 14, 2010, <<http://tess2.uspto.gov>>. [2.26]

<sup>176</sup> U.S. Registration Number 3,886,200, December 7, 2010, <<http://tess2.uspto.gov>>. [2.27]

<sup>177</sup> U.S. Registration Number 3,889,685, December 14, 2010, <<http://tess2.uspto.gov>>. [2.28]

<sup>178</sup> U.S. Registration Number 3,886,169, December 7, 2010, <<http://tess2.uspto.gov>>. [2.29]

<sup>179</sup> U.S. Registration Number 3,886,197, December 7, 2010, <<http://tess2.uspto.gov>>. [2.30]

<sup>180</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 4. [2.17]

<sup>181</sup> U.S. Application Serial Number 85/041,463, May 18, 2010, <<http://tess2.uspto.gov>>. [2.31]

<sup>182</sup> U.S. Application Serial Number 85/041,463, May 18, 2010, <<http://tess2.uspto.gov>>. [2.31]



**c) iTunes Eighth Note and CD Design Trademark**

78. The iTunes Eighth Note and CD Design Trademark refers to “the mark shown in U.S. Registration No. 2,935,038.”<sup>183</sup> This application was filed on March 11, 2004, published for opposition on December 28, 2004, and registered on March 22, 2005.<sup>184</sup> The mark is reproduced below.<sup>185</sup>



**C. Samsung’s Allegedly Infringing Products**

79. Apple has accused several Samsung smartphones and tablets of infringing its asserted intellectual property. I reproduce below a summary of Apple’s infringement assertions as reported in the Musika Report:<sup>186</sup>

<sup>183</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, p. 4. [2.17]

<sup>184</sup> U.S. Registration Number 2,935,038, March 22, 2005, <<http://tess2.uspto.gov>>. [2.32]

<sup>185</sup> U.S. Registration Number 2,935,038, March 22, 2005, <<http://tess2.uspto.gov>>. [2.32]

<sup>186</sup> I understand that there is some dispute between the parties as to which Samsung products are accused in this lawsuit. The inclusion of a product in my analysis should not be taken as an admission that Samsung agrees that the product is properly accused in this case. Additionally, I understand that there is a dispute between the parties as to whether Samsung is required to produce financial information relating to the Galaxy S II (Skyrocket), Galaxy S II (Epic 4G Touch), and the Galaxy Tab 10.1 (4G LTE). (Samsung’s Opposition to Apple’s Motion for Rule 37(b)(2) Sanctions for Samsung’s Alleged Violation of January 27, 2012 Damages Discovery Order, March 12, 2012, pp. 15-16. [13.5].) For that reason, I have not included those three products in my analysis. In the event the Court determines that Samsung must produce financial information relating to the Galaxy S II (Skyrocket), Galaxy S II (Epic 4G Touch), and the Galaxy Tab 10.1 (4G LTE), I will supplement my analysis.

**Figure 17: Samsung Devices that Allegedly Infringe Apple Utility and Design Patents<sup>187</sup>**

Patent	Utility Patents						Design Patents							
	User Interface				Touchscreen		GUI			Electronic Device				
	'002	'163	'381	'891	'915	'607	'129	D305	D334	D790	D087	D270	D677	D889
Acclaim	✓	✓		✓	✓									
Captivate	✓	✓	✓	✓	✓			✓	✓	✓				
Continuum	✓	✓	✓	✓	✓			✓	✓	✓				
Droid Charge	✓	✓	✓	✓	✓			✓	✓	✓				
Epic 4G	✓	✓	✓	✓	✓			✓	✓	✓				
Exhibit 4G	✓	✓	✓	✓	✓									
Fascinate	✓	✓	✓	✓	✓			✓	✓	✓				✓
Galaxy Ace	✓	✓	✓	✓	✓									✓
Galaxy Prevail	✓	✓	✓	✓	✓									
Galaxy S (i9000)	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	
Galaxy S 4G	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	
Galaxy S II (AT&T)	✓	✓	✓	✓	✓						✓		✓	
Galaxy S II (i9100)	✓	✓	✓	✓	✓						✓		✓	
Galaxy S II (T-Mobile)	✓	✓		✓	✓								✓	
Galaxy S Showcase (i500)	✓	✓	✓	✓	✓			✓	✓	✓				✓
Galaxy Tab	✓	✓	✓	✓	✓	✓	✓							
Galaxy Tab 10.1 (WiFi)	✓	✓	✓	✓	✓	✓	✓							✓
Gem	✓	✓	✓	✓	✓			✓	✓	✓				
Gravity Smart	✓	✓	✓	✓	✓									
Indulge	✓	✓	✓	✓	✓			✓	✓	✓				
Infuse 4G	✓	✓	✓	✓	✓			✓	✓	✓	✓		✓	
Intercept	✓	✓	✓	✓	✓									
Mesmerize	✓	✓	✓	✓	✓			✓	✓	✓				✓
Nexus S	✓	✓	✓	✓	✓									
Nexus S 4G	✓	✓	✓	✓	✓									
Replenish	✓	✓	✓	✓	✓									
Sidekick	✓	✓	✓	✓	✓									
Transform	✓	✓		✓	✓									
Vibrant	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	

<sup>187</sup> Schedule 6.1. [1.2]

**Figure 18: Samsung Devices that Allegedly Infringe Apple Trade Dress and Trademarks<sup>188</sup>**

Patent	Trade Dress							Trademarks							
	'218	'327	'983	iPhone	iPhone 3G	iPhone 4	iPad / iPad 2	'038	'169	'196	'197	'200	'642	'685	'463 (Pending)
Acclaim													✓		
Captivate	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
Continuum	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Droid Charge	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓
Epic 4G	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
Exhibit 4G								✓	✓	✓	✓	✓		✓	✓
Fascinate	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Galaxy Ace						✓		✓	✓	✓	✓	✓		✓	✓
Galaxy Prevail	✓	✓	✓	✓	✓								✓		
Galaxy S (i9000)	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
Galaxy S 4G	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
Galaxy S II (AT&T)	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓	✓
Galaxy S II (i9100)	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓	✓
Galaxy S II (T-Mobile)	✓	✓	✓	✓	✓			✓		✓	✓			✓	✓
Galaxy S Showcase (i500)	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Galaxy Tab							✓	✓	✓		✓	✓	✓	✓	✓
Galaxy Tab 10.1 (WiFi)							✓	✓			✓			✓	✓
Gem								✓		✓	✓	✓	✓	✓	✓
Gravity Smart								✓	✓	✓	✓	✓		✓	✓
Indulge								✓	✓	✓	✓	✓		✓	✓
Infuse 4G	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
Intercept													✓		
Mesmerize	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
Nexus S													✓		
Nexus S 4G													✓		
Replenish													✓		
Sidekick									✓			✓			
Transform													✓		
Vibrant	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓

## 1. Samsung Galaxy Smartphones

80. Upon the brand's launch in June of 2010, one article stated that Samsung's Galaxy S line of smartphones marked the arrival of "a new class of smartphone that [would]

<sup>188</sup> Schedule 6.1. [1.2]

deliver a wealth of intelligent, immersive and integrated experiences for users.”<sup>189</sup> The same article observed that “over 100 mobile operators across the globe [had] selected the Galaxy S as their key smartphone market driver.”<sup>190</sup> The Galaxy S brand was to “be the flagship model of the smartphone range Samsung” began introducing in 2010.<sup>191</sup>

81. As the table below shows, since Samsung released the Galaxy S i9000 overseas in June of 2010, the company had launched at least nine other phones bearing the Galaxy S name as of September, 2011. Apple has alleged that all of these devices infringe Apple’s intellectual property asserted in this matter.<sup>192</sup>

**Figure 19: Samsung Galaxy S Smartphone U.S. Launch Dates**<sup>193</sup>

Product	Launch Date	U.S. Carrier
Galaxy S i9000	6/2/2010	Non-U.S. Launch
Galaxy S Vibrant	7/15/2010	T-Mobile
Galaxy S Captivate	7/18/2010	AT&T
Galaxy S Epic 4G	8/31/2010	Sprint
Galaxy S Fascinate	9/8/2010	Verizon
Galaxy S Mesmerize	10/27/2010	U.S. Cellular
Galaxy S Continuum	11/11/2010	Verizon
Galaxy S Showcase i500 <sup>194</sup>	11/15/2010	Cellular South
Galaxy S 4G	2/23/2011	T-Mobile
Galaxy S II	9/16/2011	Sprint

<sup>189</sup> "Samsung Galaxy S launches in Europe, hitting US 'later this year'," engadget, June 3, 2010. [3.7]

<sup>190</sup> "Samsung Galaxy S launches in Europe, hitting US 'later this year'," engadget, June 3, 2010. [3.7]

<sup>191</sup> "Samsung Galaxy S launches in Europe, hitting US 'later this year'," engadget, June 3, 2010. [3.7]

<sup>192</sup> Musika Report, Exhibit 4. [2.2]

<sup>193</sup> Non-U.S. launches where noted. Note that several of these products omit the phrase “Galaxy S” from the names of the phones. I have come to the understanding that the phones listed in the figures above are Galaxy S phones.

<sup>194</sup> Note that Apple’s Objections and Responses to Samsung’s First Set of Interrogatories list separately a “Showcase i500,” “Showcase Galaxy S,” and “Showcase (Cellular South).” However, a comparison of the article announcing the release of the Galaxy S Showcase and Samsung’s product page suggests that these are all the same device.

## 2. Other Samsung Smartphones

82. In addition to the Galaxy S line of smartphones, Samsung also released myriad other smartphones in 2010 and 2011. All of the smartphones listed in the table below are subject to Apple's allegations of infringement in this matter.<sup>195</sup>

83. Certain of these devices occupy the market for mid-range smartphones; the Exhibit 4G, Gravity Smart,<sup>196</sup> and the Transform<sup>197</sup> for example. Most of them appear to run a variant of the Android operating system.

**Figure 20: Non-Galaxy S Samsung Smartphone U.S. Launch Dates<sup>198</sup>**

Product	Launch Date	U.S. Carrier
Acclaim	7/9/2010	U.S. Cellular
Intercept	7/11/2010	Sprint
Transform	10/10/2010	Sprint
Nexus S	12/16/2010	T-Mobile
Gem	4/1/2011	U.S. Cellular
Sidekick 4G <sup>199</sup>	4/20/2011	T-Mobile
Galaxy Prevail	4/29/2011	Boost Mobile
Nexus S 4G	5/8/2011	Sprint
Replenish	5/8/2011	Sprint
Droid Charge	5/14/2011	Verizon
Infuse 4G	5/15/2011	AT&T
Indulge	6/7/2011	Cricket Communications
Exhibit 4G	6/22/2011	T-Mobile
Gravity Smart	6/22/2011	T-Mobile
Galaxy Ace	2011	Non-U.S. Launch

<sup>195</sup> Apple Inc.'s Objections and Responses to Samsung Electronics Co., Ltd.'s First Set of Interrogatories to Apple Inc., September 12, 2011, pp. 19-20. [2.17]

<sup>196</sup> "T-Mobile Announces Launch Date for Samsung Exhibit 4G and Gravity SMART," Brighthand, June 15, 2011, <<http://www.brightand.com/default.asp?newsID=17907&news=t-mobile+samsung+exhibit+4g+gravity+smart+android+2.2+2.3+froyo+gingerbread>>. [3.9]

<sup>197</sup> "Sprint Launches Android OS-based Samsung Transform, Sanyo Zio," Brighthand, October 10, 2010, <<http://www.brightand.com/default.asp?newsID=17103&news=Google+Android+OS+Sprint+Samsung+Transform+Sanyo+Zio+ID>>. [3.10]

<sup>198</sup> Non-U.S. launches where noted.

<sup>199</sup> Apple's Objections and Responses list the "Sidekick." The only Sidekick phone that appears to be manufactured by Samsung is the Sidekick 4G. Earlier versions of the Sidekick sold by T-Mobile were primarily manufactured by Sharp. See, e.g., "T-Mobile's Sidekick 4G by Samsung coming this spring," VentureBeat, March 15, 2011, <<http://venturebeat.com/2011/03/15/sidekick-4g-announced/>>. [3.8]

### 3. Tablet Computers

84. As shown in the table below, Samsung released its first Galaxy Tab in November of 2010. Samsung's tablet launched first through T-Mobile, and shortly thereafter through Verizon and Sprint.<sup>200</sup> An article heralding the release of the Galaxy Tab noted that the device "delivers access to rich content on a seven-inch touch screen for a truly mobile entertainment experience."<sup>201</sup>

85. Samsung's more recent tablet, the Galaxy Tab 10.1, made its debut on June 8, 2011 in New York City.<sup>202</sup> The device was also available via pre-order on that date and was expected to release across the U.S. on June 17, 2011.<sup>203</sup> An article written upon the device's release noted that the Galaxy Tab 10.1 was an "extra-slim 10-inch Tegra 2 tablet ..."<sup>204</sup> "Tegra 2" refers to the tablet's dual-core Tegra 2 processor.<sup>205</sup> The Galaxy Tab 10.1 was released with the Android Honeycomb operating system and included front and rear-facing cameras.<sup>206</sup>

**Figure 21: Samsung Galaxy Tablet Computer U.S. Launch Dates**

Product	Launch Date
Galaxy Tab 7 (3G)	11/10/2010
Galaxy Tab 10.1	6/8/2011

### IV. Bases for Opinions

86. The following is a discussion of the bases supporting each of my opinions.

<sup>200</sup> "T-Mobile Gets First Dibs on Galaxy Tab: November 10th for \$400," Gizmodo, October 27, 2010, <<http://gizmodo.com/5674534/t+mobile-gets-first-dibs-on-galaxy-tab-november-10th-for-400>>. [3.11]

<sup>201</sup> "T-Mobile Gets First Dibs on Galaxy Tab: November 10th for \$400," Gizmodo, October 27, 2010, <<http://gizmodo.com/5674534/t+mobile-gets-first-dibs-on-galaxy-tab-november-10th-for-400>>. [3.11]

<sup>202</sup> "Samsung Galaxy Tab 10.1 on sale at NYC Best Buy today, pre-orders now open," Engadget, June 8, 2011, <<http://www.engadget.com/2011/06/08/samsung-galaxy-tab-10-1-on-sale-at-nyc-best-buy-today-up-for-pr/>>. [3.12]

<sup>203</sup> "Samsung Galaxy Tab 10.1 on sale at NYC Best Buy today, pre-orders now open," Engadget, June 8, 2011, <<http://www.engadget.com/2011/06/08/samsung-galaxy-tab-10-1-on-sale-at-nyc-best-buy-today-up-for-pr/>>. [3.12]

<sup>204</sup> "Samsung Galaxy Tab 10.1 on sale at NYC Best Buy today, pre-orders now open," Engadget, June 8, 2011, <<http://www.engadget.com/2011/06/08/samsung-galaxy-tab-10-1-on-sale-at-nyc-best-buy-today-up-for-pr/>>. [3.12]

<sup>205</sup> "Samsung Galaxy Tab 10.1 official: Tegra 2, Honeycomb, dual cameras (hands-on with video)," Engadget, February 13, 2011, <<http://www.engadget.com/2011/02/13/samsung-galaxy-tab-10-1-official-tegra-2-honeycomb-dual-camer/>>. [3.13]

<sup>206</sup> "Samsung Galaxy Tab 10.1 official: Tegra 2, Honeycomb, dual cameras (hands-on with video)," Engadget, February 13, 2011, <<http://www.engadget.com/2011/02/13/samsung-galaxy-tab-10-1-official-tegra-2-honeycomb-dual-camer/>>. [3.13]

**A. Disagreements With the Opinions Expressed By Terry L. Musika**

87. With respect to Mr. Musika’s valuation of the damages suffered by Apple related to Samsung’s alleged infringement, I offer the following opinions.

**1. Mr. Musika’s analysis is a high-level analysis and is largely divorced from the specific intellectual property that is at issue in this lawsuit.**

88. Mr. Musika’s analysis is generally at a very high level and is not tied to the specific intellectual property at issue in this lawsuit. This is most evident in Mr. Musika’s discussion of the benefits provided by the Design IP. Mr. Musika consistently refers to “the importance of design in consumer demand” and the importance of design to Apple.<sup>207</sup> While I do not disagree that design is important to Apple and that consumers do care about what a product looks like, Mr. Musika’s discussion is not properly tied to the value of the limited *specific* Design Patents, Trade Dress, and Trademarks at issue in this lawsuit.

89. It is conceptually wrong to assume that the limited number of design patents, trade dress and trademarks of Apple that is a small subset of all of Apple’s design intellectual property contains 100% of the value of Apple’s design intellectual property. It is also incorrect to assign the same value to this limited subset of Apple’s design intellectual property, and assign the same royalty rate, whether one item of this bundle of intellectual property is used or all of it is used by Samsung.

**a) Mr. Musika fails to provide evidence of demand for the specific design IP at issue.**

90. Mr. Musika claims that he “identified and documented numerous examples of demand for each item of Apple Intellectual Property In Suit for which Apple is seeking a lost profit on Exhibits 24 and 25.”<sup>208</sup> His Exhibit 24 contains numerous citations to documents that he claims “demonstrate the importance of design in consumer demand.”<sup>209</sup> [REDACTED]

[REDACTED]

[REDACTED] in his comment #53, Mr. Musika quotes Samsung, “Overall, the iPhone 3GS was rated better than

<sup>207</sup> Musika Report, pp. 82-84. [2.2]

<sup>208</sup> Musika Report, p. 38. [2.2]

<sup>209</sup> Musika Report, p. 82, Exhibit 24. [2.2]

<sup>210</sup> Musika Report, p. 82, Exhibit 24, Comment #18. [2.2]



other devices in overall design...”<sup>211</sup> These citations do not provide any evidence that consumers demand the *specific* teachings of Apple’s design-related IP at issue in this lawsuit.

[REDACTED]

[REDACTED]

[REDACTED]<sup>212</sup>

91. In addition, Mr. Musika appears to ignore ample evidence presented in the documents cited in Exhibit 24 that there are more important factors than design that affect consumer demand for smartphones and tablets. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

92. Similarly, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

93. In his comment #8, Mr. Musika [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>211</sup> Musika Report, p. 82, Exhibit 24, Comment #53. [2.2]

<sup>212</sup> Musika Report, Exhibit 24, Comments #13, #14, and #29. [2.2]

<sup>213</sup> Musika Report, Exhibit 24, Comment #6. [2.2]

<sup>214</sup> [REDACTED]

<sup>215</sup> Musika Report, Exhibit 24, Comment #7. [2.2]

<sup>216</sup> [REDACTED] APLNDC-Y0000025024-147 at '060. [3.16]

<sup>217</sup> Musika Report, Exhibit 24, Comment #8. [2.2]

[REDACTED]

94. According to Mr. Musika’s comment #45, “Samsung describes “Design” as a main feature of the Galaxy S II in its internal presentation.<sup>220</sup> However, Design is just one of the Galaxy S II’s features highlighted in the presentation.<sup>221</sup> Samsung also emphasizes the “ultra vivid and bright” display of the Galaxy S II, its “powerfully fast” performance and “rich and convenient” content.<sup>222</sup> In fact, in a section entitled “Main Features” of the Galaxy S II, Samsung dedicates only one slide to the description of the Galaxy S II’s design, stating that it is “Slim and Light.”<sup>223</sup> The other 10 slides of this section highlight the Super AMOLED Plus display, Dual Core Application Processor, More Powerful Battery, Ultrafast Download Speeds, Voice Solution and 4 Hubs capabilities of the Galaxy S II.<sup>224</sup>

**(1) Apple’s recognized design lead indicates that the design-related IP at issue is a small element of the “design” that is consistently referenced by Apple’s experts.**

95. Even after Samsung has allegedly incorporated into its products the design-related IP at issue in this lawsuit, Apple still retains a widely recognized design advantage over Samsung. This indicates that the importance of design referred to by Mr. Musika and other Apple experts has little to nothing to do with the specific design-related IP at issue.

96. There is ample evidence that Apple’s iPhones and iPads are rated significantly higher in overall design than Samsung’s smartphones and tablets, even after Samsung is accused of infringement of the design-related IP. In an August 2010 report presenting the findings of Strategy Analytics’ User Evaluation of the iPhone 4, Strategy Analytics concluded that participants considered the design of the iPhone 4 to be very appealing.<sup>225</sup> Strategy Analytics further detailed that “[p]articipants felt the glass casing of the device made it look very sleek and modern, and was an improvement on the plastic casing of the 3G and 3GS

<sup>218</sup> [REDACTED], APLNDC0001434059-154 at ‘143-144. [3.17]

<sup>219</sup> [REDACTED], APLNDC0001434059-154 at ‘144. [3.17]

<sup>220</sup> Musika Report, Exhibit 24, Comment #45. [2.2]

<sup>221</sup> Samsung Galaxy S II Presentation, SAMNDCA10775587-624 at ‘593. [3.19]

<sup>222</sup> Samsung Galaxy S II Presentation, SAMNDCA10775587-624 at ‘593. [3.19]

<sup>223</sup> Samsung Galaxy S II Presentation, SAMNDCA10775587-624 at ‘599. [3.19]

<sup>224</sup> Samsung Galaxy S II Presentation, SAMNDCA10775587-624 at ‘595-‘598, ‘600-‘605. [3.19]

<sup>225</sup> Mobile Device User Evaluation: Apple iPhone 4, Strategy Analytics, August 2010, SAMNDCA00252302-329 at ‘309. [13.6]

models.”<sup>226</sup> Participants also liked the visual appearance of the stainless steel band around the edge of the device.<sup>227</sup> The iPhone 4 also received high ratings for all attributes related to the display, including maximum rating for display resolution.<sup>228</sup>

97. In 2011 Wireless Mobile Phone studies conducted by J.D. Power and Associates, Apple is ranked significantly above the industry average (at 95 percent confidence level) in smartphone physical design.<sup>229</sup> According to the studies, “Apple outperforms all other manufacturers in the Physical Design factor” and “sets the bar for the competition with regard to styling and screen quality.”<sup>230</sup> As shown in Figure 22 below, Apple leads in all physical design attributes, including the visual appeal of wireless phone, size of display screen, brightness of background display screen lighting, and weight and size of wireless phone.<sup>231</sup>

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<sup>226</sup> Mobile Device User Evaluation: Apple iPhone 4, Strategy Analytics, August 2010, SAMNDCA00252302-329 at ‘309. [13.6]

<sup>227</sup> Mobile Device User Evaluation: Apple iPhone 4, Strategy Analytics, August 2010, SAMNDCA00252302-329 at ‘309. [13.6]

<sup>228</sup> Mobile Device User Evaluation: Apple iPhone 4, Strategy Analytics, August 2010, SAMNDCA00252302-329 at ‘322. [13.6]

<sup>229</sup> 2011 U.S. Wireless Mobile Phone Study Results Presentation Volume2, J.D. Power and Associates, November 15, 2011, SAMNDCA00282033-088 at ‘064. [13.7] *See also* 2011 Wireless Traditional Mobile Phone Satisfaction Study, Pre-Release Presentation V1, J.D. Power and Associates, March, 2011, SAMNDCA10340243-265 at ‘259 and ‘261. [13.8] *See also* 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘372, ‘378, ‘382. [13.9]

<sup>230</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘384. [13.9]

<sup>231</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘388. [13.9]

Figure 22: Physical Design Attribute Ratings Compared to Average<sup>232</sup>

Physical Design Attribute Ratings Compared to Average								
	Industry Average	Apple	HTC	Palm	Samsung	Motorola	RIM BlackBerry	Nokia
Physical Design Index	795	831	808	782	780	777	763	761
Visual appeal of wireless phone	8.16	8.63	8.28	7.87	7.95	7.89	7.79	7.67
Size of display screen	7.93	8.37	8.16	7.32	7.90	8.24	7.34	7.34
Brightness of background display screen lighting	8.14	8.45	8.27	8.15	7.93	8.09	7.82	7.80
Weight of phone (including battery)	7.73	8.00	7.77	7.95	7.71	7.11	7.62	7.68
Size of wireless phone	7.75	8.01	7.88	7.80	7.47	7.43	7.57	7.55

For handsets used for less than 2 years.

■ = Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).  
 ■ = Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).

98. CNET’s iPhone 4 product review praises the “handset’s striking design.”<sup>233</sup>

With iPhone 4, Apple again shows that it’s a powerful player in the smartphone wars. It won’t be for everyone, and AT&T remains a sticking point, but the handset’s striking design, loaded feature set, and satisfying performance make it the best iPhone yet.

99. An iPhone 4S press release emphasizes that “iPhone 4S has the same beautifully thin glass and stainless steel design that millions of customers around the world love...”<sup>234</sup>

100. In an iPad 2 press release, dated March 2, 2011, Apple features “an entirely new design [of the iPad 2] that is 33 percent thinner and up to 15 percent lighter than the original iPad....” Steve Jobs is quoted as saying, “While others have been scrambling to copy the first generation iPad, we’re launching iPad 2, which moves the bar far ahead of the competition and will likely cause them to go back to the drawing boards yet again.”<sup>235</sup>

<sup>232</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘388. [13.9]

<sup>233</sup> iPhone 4.0 Quick Report & Analysis, June 28, 2010, SAMNDCA00024872-941 at ‘890. [4.1]

<sup>234</sup> Apple Press Info: Apple Launches iPhone 4S, iOS 5 & iCloud, October 4, 2011, <<http://www.apple.com/pr/library/2011/10/04Apple-Launches-iPhone-4S-iOS-5-iCloud.html>>, accessed on October 10, 2011. [3.23]

<sup>235</sup> “Apple Launches iPad 2,” Apple Inc. Press Release, March 2, 2011, <<http://www.apple.com/pr/library/2011/03/02Apple-Launches-iPad-2.html>>, accessed on April 5, 2012. [3.24]

101. The attractive design of Apple’s iPad is also discussed in a September 25, 2011 New York Times article: “Apple also has a lead in design that will be tough to surmount. People want to own its products because they are so good-looking.”<sup>236</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

102. An Argus Insights white paper on the iPad 2 launch draws the same conclusion, “the iPad family will continue to shine, and Apple will keep the lead on style and design.”<sup>238</sup> Recently, in a March 14, 2012 interview with the London Evening Standard, Jonathan Ive, Apple’s senior vice president of industrial design, explained Apple’s goal as “to design and make better products.”<sup>239</sup> “If we can’t make something that is better, we won’t do it,” he said.<sup>240</sup> Apple also highlights the advanced design of its new iPad on its website, stating that “with its advanced design, breakthrough technology, and amazing built-in apps, iPad changes the way you work.”<sup>241</sup>

103. If Mr. Musika’s analysis is correct, one would not expect there to be any design advantage to Apple over Samsung because Samsung has used all of the value of Apple’s designs according to his approach.

**(2) The use of smartphone cases minimizes the importance of the design-related IP**

104. [REDACTED]

[REDACTED]

<sup>236</sup> David Streitfeld, Amazon Has High Hopes for its iPad Competitor, N.Y. Times, September 25, 2011, <<http://www.nytimes.com/2011/09/26/technology/anticipated-amazon-tablet-to-take-aim-at-apple-ipad.html?pagewanted=all>>, accessed on April 6, 2012. [3.25]

<sup>237</sup> Expert Report of Sanjay Sood, March 22, 2012, p. 24. [4.7] (Hereafter, “Sood Report”)

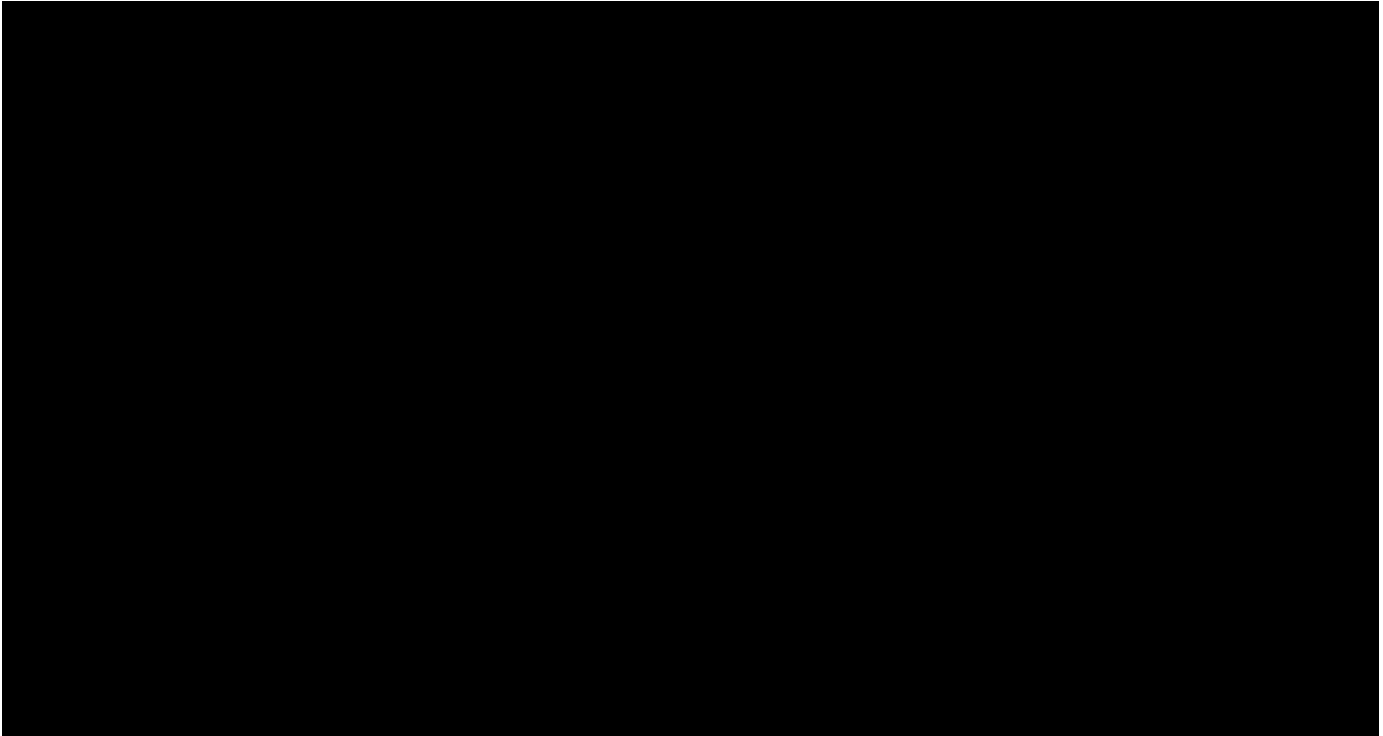
<sup>238</sup> Argus Insights White Paper: iPad 2 Launch Report - Mapping the Customer Experience Landscape for the Tablet Market, April 5, 2011, SAMNDCA00237364-371 at ‘370. [4.2]

<sup>239</sup> Sir Jonathan Ive: The iMan cometh, Mark Prigg meets Sir Jonathan Ive, the British man behind the design of Apple’s iconic products, London Evening Standard, March 14, 2012, <<http://www.thisislondon.co.uk/lifestyle/london-life/sir-jonathan-ive-the-iman-cometh-7562170.html>>, accessed on April 6, 2012. [4.3]

<sup>240</sup> Sir Jonathan Ive: The iMan cometh, Mark Prigg meets Sir Jonathan Ive, the British man behind the design of Apple’s iconic products, London Evening Standard, March 14, 2012, <<http://www.thisislondon.co.uk/lifestyle/london-life/sir-jonathan-ive-the-iman-cometh-7562170.html>>, accessed on April 6, 2012. [4.3]

<sup>241</sup> Apple - The new iPad - It’s brilliant from the outside in, <<http://www.apple.com/ipad/>>, accessed on April 6, 2012. [4.4]

Figure 23:



105. Any protective iPhone cover would diminish the importance of the iPhone design because certain design elements related to the shape and appearance of the iPhone become covered in an iPhone case.

**b) Mr. Musika fails to provide evidence of demand for the specific utility patents at issue.**

106. A similar criticism applies to Mr. Musika’s analysis of Apple’s utility patents. In Exhibit 25, Mr. Musika presents citations and quotes from documents that he argues demonstrate the “Demand for Utility Patents.”<sup>244</sup> However, it appears that in his Exhibit 25 Mr.

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<sup>242</sup> [REDACTED] APLNDC0000036266-348 at 345. [7.1] See also [REDACTED] APLNDC0000036172-365 at 262. [7.2]

Musika attempts to illustrate the utility of features, not of functionalities taught by the '381, '915, '163 and '607 Patents.<sup>245</sup> Mr. Musika offers little or no evidence in his Exhibit 25 that consumers demand functionalities enabled by '002, '891 and '129 Patents-in-Suit.<sup>246</sup>

107. Moreover, many of the citations in Exhibit 25 do not provide evidence that consumers demand the limited *specific* functionalities enabled by '381, '915, '163 and '607 Patents-in-Suit. For example, Mr. Musika references 11 commercials for iPhone, iPad, Galaxy Tab, Galaxy S, and Galaxy S II.<sup>247</sup> While I do not disagree with Mr. Musika that scrolling and zooming functions are shown during the commercials, the commercials generally focus on advertising other functionalities of their products. That is, the iPhone commercial features email and internet capabilities of the iPhone.<sup>248</sup> In the iPhone 3G commercial, Apple advertises apps available on the iPhone 3G.<sup>249</sup> In the commercial for the iPhone 4, Apple highlights the iPhone 4's high resolution screen.<sup>250</sup> In a series of commercials for the Galaxy Tab and Galaxy Tab 10.1, Samsung emphasizes enhanced portability of the tablet under the campaign slogan of "More Possibilities On The Go."<sup>251</sup> In addition, in the official global TV-commercial for the Galaxy Tab, Samsung advertises Web Browsing, E-reader, Navigation and Video Conferencing functionalities.<sup>252</sup> In the "Time to Tab" commercial for Galaxy Tab 10.1, High Resolution Screen, Dual Core Processor, Web Browsing with Adobe Flash and Multitasking capabilities are highlighted.<sup>253</sup> In the Samsung Galaxy Tab commercial "It's Go Time!," Samsung again features High Resolution Screen, Web Browsing, Navigation with Google Maps, and Video Calling as

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<sup>243</sup> [REDACTED] APLNDC0000036266-348 at

<sup>244</sup> '345. [7.1] See also [REDACTED]  
APLNDC0000036172-365 at '262. [7.2]

<sup>245</sup> Musika Report, Exhibit 25. [2.2]

<sup>246</sup> Musika Report, Exhibit 25. [2.2]

<sup>247</sup> Musika Report, Exhibit 25. [2.2]

<sup>248</sup> Musika Report, Exhibit 25. [2.2]

<sup>249</sup> Musika Report, Exhibit 25, Comment #6. [2.2] See also Exhibit 10 to the Declaration of Sissie Twiggs, Apple Television Commercials 2007-2011 (video).

<sup>250</sup> Musika Report, Exhibit 25, Comment #7. [2.2] See also Exhibit 8 to the Declaration of Sissie Twiggs, Apple Television Commercials 2007-2011 (video).

<sup>251</sup> Musika Report, Exhibit 25, Comment #8. [2.2] See also Exhibit 10 to the Declaration of Sissie Twiggs, Apple Television Commercials 2007-2011 (video).

<sup>252</sup> Musika Report, Exhibit 25, Comments #28, #29, and #33. [2.2] See also Samsung Galaxy Tab Official Commercial, <<http://www.youtube.com/watch?v=GHPJdqgsJ9g>>. See also Time To Tab – Samsung Galaxy Tab 10.1 Global TV Commercial, <<http://www.youtube.com/watch?v=QL8ePbYsdc8>>. See also [GALAXY Tab 10.1] Official Demo – HD, <<http://www.youtube.com/watch?v=7tfX3Vlz0nl&feature=related>>.

<sup>253</sup> Musika Report, Exhibit 25, Comment #28. [2.2] See also Samsung Galaxy Tab Official Commercial, <<http://www.youtube.com/watch?v=GHPJdqgsJ9g>>.

<sup>254</sup> Musika Report, Exhibit 25, Comment #29. [2.2] See also Time To Tab – Samsung Galaxy Tab 10.1 Global TV Commercial, <<http://www.youtube.com/watch?v=QL8ePbYsdc8>>.

well as Samsung Media Hub, Battery Life, and Android apps.<sup>254</sup> The Official Demo for Galaxy Tab 10.1 contains a detailed demonstration of such key features of the tablet as the Android 3.1. Honeycomb Platform, Google Mobile Services, Samsung TouchWiz, Web Browsing, Battery Life, and Samsung Media Hub.<sup>255</sup> Similarly, in the commercial for the Galaxy S II, Samsung highlights its Super AMOLED Plus display, TouchWiz, Live Panel, and Web Browsing with Adobe Flash capabilities.<sup>256</sup> The commercial for the Samsung Continuum, a Galaxy S phone, focuses on advertising a second screen ticker tape display.<sup>257</sup>

108. In his Exhibit 25, comment #5, Mr. Musika points out [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

109. Mr. Musika also cites four press releases that highlight “advanced touch screen gestures capabilities” of Samsung Fascinate, Epic 4G, Mesmerize and Captivate smartphones.<sup>260</sup> But Mr. Musika does not mention that advanced touch screen gestures capability is only one of many features and specifications highlighted in the press releases. For example, in a Samsung Fascinate press release, Samsung lists 17 key features and specifications of the smartphone, including the Android 2.1 platform, Web browsing capabilities, 3G Mobile HotSpot capabilities, Super AMOLED Screen Technology and others.<sup>261</sup> In addition,

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<sup>254</sup> Musika Report, Exhibit 25, Comment #30. [2.2] See *a/s/o* Introducing the Samsung Galaxy Tab - It's Go Time!, <<http://www.youtube.com/watch?v=yGKthibnyTE>>.

<sup>255</sup> Musika Report, Exhibit 25, Comment #33. [2.2] See *a/s/o* [GALAXY Tab 10.1] Official Demo – HD, <<http://www.youtube.com/watch?v=7tfX3Vlz0nI&feature=related>>.

<sup>256</sup> Musika Report, Exhibit 25, Comment #34. [2.2] See *a/s/o* GALAXY S II] Official Live Demo – Media, <[http://www.youtube.com/watch?v=XA9lcemwkMk&feature=autoplay&list=PL3F63929F54D9A90A&lf=plpp\\_video&playnext=1](http://www.youtube.com/watch?v=XA9lcemwkMk&feature=autoplay&list=PL3F63929F54D9A90A&lf=plpp_video&playnext=1)>.

<sup>257</sup> Musika Report, Exhibit 25, Comment #31. [2.2] See *a/s/o* Samsung Continuum – A Galaxy S Phone (Verizon), <<http://www.youtube.com/watch?v=Kli32R3yciY>>.

<sup>258</sup> Musika Report, Exhibit 25, Comment #5. [2.2]

<sup>259</sup> [REDACTED], APLNDC-Y0000023361-427 at '387. [3.20]

<sup>260</sup> Musika Report, Exhibit 25, Comments #19, #21, #22 and #23. [2.2]

<sup>261</sup> VZW News Release: Verizon Wireless Announces the Samsung Fascinate, A Galaxy S Smartphone, June 28, 2010, SAMNDCA00312249-251. [3.21]



Samsung details seven lifestyle features.<sup>262</sup> Overall, the advanced touch screen gestures capability is only one of 24 smartphone features described in the press release.<sup>263</sup>

110. Further, as I discuss in my analysis of *Georgia-Pacific* factor 9, I understand that Apple did not invent the touchscreen or multitouch capabilities on a touchscreen with its Multitouch-Related Utility Patents.<sup>264</sup> Therefore, Mr. Musika's citations to gestures and touchscreen capabilities are not specific to the benefits provided by the utility patents at issue in this lawsuit.

**2. Although Mr. Musika claims not to use the entire market value rule, in effect he does.**

111. Mr. Musika's report includes a discussion of the Entire Market Value Rule ("EMVR"), and Mr. Musika concludes that:<sup>265</sup>

The individual accused smartphone and tablet products of Samsung are comprised of a number of patented and un-patented elements. Accordingly, I have considered the effect of the entire market value of the products and elected to structure my royalty damage on an individual per unit basis and not the total revenue of the accused products. Further, as discussed below, I take steps to apportion the overall royalty rate when considering the total profit contributions of the accused products. As reflected in Exhibit 20, I use the number of accused units sold and not revenue as the basis on which to calculate a royalty for each asserted item of Apple Intellectual Property In Suit.

112. Apparently, Mr. Musika believes that as long as he expresses his royalty rate opinion as a per unit rate, then he is not using the Entire Market Value rule. However, Mr. Musika is invoking the EMVR throughout his report because he continually bases his damages calculation on the entire profit of Apple's and Samsung's smartphones.

113. In his lost profits calculation, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>262</sup> VZW News Release: Verizon Wireless Announces the Samsung Fascinate, A Galaxy S Smartphone, June 28, 2010, SAMNDCA00312249-251. [3.21]

<sup>263</sup> VZW News Release: Verizon Wireless Announces the Samsung Fascinate, A Galaxy S Smartphone, June 28, 2010, SAMNDCA00312249-251. [3.21]

<sup>264</sup> Discussion with Brian Von Herzen, April 12, 2012.

<sup>265</sup> Musika Report, pp. 52-53. [2.2]

114. In his reasonable royalty analysis, Mr. Musika’s primary benchmarks are both based on the profit of the entire device. Mr. Musika’s cost benchmark calculates the profit of Samsung’s entire device for the period that he claims it would take for Samsung to design around the asserted intellectual property. This measure of damages is clearly not related to the value of the intellectual property – in the extreme case, if Samsung were not able to design around a patent, Mr. Musika’s methodology would calculate a royalty of 100% of Samsung’s profits even if the patent had no effect whatsoever on the sales of the accused devices.

115. Mr. Musika’s income approach is similarly reliant on the entire profits of Apple’s and Samsung’s smartphones and tablets. For Apple, Mr. Musika essentially compares the profits of Apple’s smartphones and tablets to other Apple products and takes this “economic value” and attributes it to the intellectual property at issue in this lawsuit. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED] does not avoid the use of the EMVR.

116. Further, [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] This demonstrates that a key element in determining the royalty rates that Mr. Musika uses is the full profitability of the accused products.

**3. Mr. Musika does not establish Apple’s entitlement to lost profits related to Samsung’s infringement of the intellectual property at issue.**

117. Upon proof of infringement, Title 35, Section 284 provides that the Court shall award the plaintiff “damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”<sup>266</sup> In assessing damages, courts typically determine whether the plaintiff is entitled to lost profits, and if so, the extent of the plaintiff’s lost profits.

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<sup>266</sup> Title 35, U.S.C.A. §284. [14.2]

For those sales that are not compensated through lost profits, a reasonable royalty is typically awarded.

118. Courts have consistently upheld a “but-for” analysis of lost profits, determining lost profits damages based on the difference between the profits the plaintiff actually received and the profits the plaintiff would have received in a reconstructed market absent infringement. A Federal Circuit opinion in the *Grain Processing Corp. v. American Maize-Products Co.* provides a discussion of the assessment of lost profits damages.<sup>267</sup>

To recover lost profits, the patent owner must show "causation in fact," establishing that "but for" the infringement, he would have made additional profits. [...] When basing the alleged lost profits on lost sales, the patent owner has an initial burden to show a reasonable probability that he would have made the asserted sales "but for" the infringement. [...] Once the patent owner establishes a reasonable probability of "but for" causation, "the burden then shifts to the accused infringer to show that [the patent owner's "but for" causation claim] is unreasonable for some or all of the lost sales.

[...]

In *Aro Manufacturing*, the Supreme Court stated that the statutory measure of "damages" is "the difference between [the patent owner's] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred." [...] The determinative question, the Supreme Court stated, is: "had the Infringer not infringed, what would the Patent Holder-Licensee have made?" [...] The "but for" inquiry therefore requires a reconstruction of the market, as it would have developed absent the infringing product, to determine what the patentee "would . . . have made.

119. A seminal case regarding recovery of lost profits for patent infringement is *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*<sup>268</sup> In *Panduit*, the court held that in order to recover lost profits, the patentee must prove:

- Demand for the patented product;
- Absence of acceptable, non-infringing substitutes;
- Manufacturing and marketing capability to exploit the demand; and
- The amount of lost profits.<sup>269</sup>

<sup>267</sup> *Grain Processing Corporation v. American Maize-Products Company*, CAFC, 185 F.3d 1341, August 4, 1999, p. 6 (citations omitted). [14.3]

<sup>268</sup> *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156; 1978 U.S. App. LEXIS 11500; 197 U.S.P.Q. (BNA) 726. U.S. Court of Appeals for the Sixth Circuit, April 25, 1978. [12.1]

<sup>269</sup> *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156; 1978 U.S. App. LEXIS 11500; 197 U.S.P.Q. (BNA) 726. U.S. Court of Appeals for the Sixth Circuit, April 25, 1978, p. 2. [12.1]

120. I address my disagreements with Mr. Musika’s analysis of the first three *Panduit* factors in this section, and my disagreements with Mr. Musika’s calculation of the amount of lost profits in the next section.

**a) Mr. Musika has not provided sufficient evidence of demand for the intellectual property at issue**

121. To determine whether and to what extent Apple lost sales, an analysis of the demand for the patented feature is the critical and economically relevant inquiry. I understand that a 2009 opinion by the Federal Circuit in *Depuy Spine et al. v. Medtronic Sofamor Danek, Inc. et al.* indicates that the first Panduit factor is concerned only with the patented product and the focus on the patented feature goes to the availability of acceptable non-infringing substitutes under the second Panduit factor.<sup>270</sup> However, I address the importance of the patented feature in this Panduit factor because if there is no demand for the feature, it can always be removed.

122. Mr. Musika calculates lost profits for the ‘381, 607, ‘915, and ‘163 Patents; the Electronic Device Design Patents, and all asserted trade dress.<sup>271</sup> As I discuss in detail above, Mr. Musika’s evidence of demand for these intellectual property elements is not tied to the specific intellectual property at issue. Therefore, Mr. Musika has not satisfied the burden of providing evidence of demand related to the patented feature.

123. Further, Mr. Musika has not provided any evidence that consumers would switch to a different smartphone brand or model based on the presence or absence of the accused functionalities or design. [REDACTED]

[REDACTED]

[REDACTED] None of these experts performed any study to determine whether any customers would switch their smartphone purchase decision if the accused functionality was removed, let alone how many would have switched.

124. In his surveys, Mr. Hauser uses conjoint analysis to provide an estimate for the value of certain functionalities.<sup>274</sup> I understand that a properly constructed conjoint analysis can

<sup>270</sup> *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, CAFC, 567 F.3d 1314, June 1, 2009, pp. 11-12, 21-22. [14.4]

<sup>271</sup> Musika Report, Exhibit 15. [2.2]

<sup>272</sup> Sood Report, p. 2. [4.7] See also Expert Report of Russell S. Winer, March 22, 2012, p. 2. [4.6]

<sup>273</sup> Hauser Report, p. 6. [2.33]

<sup>274</sup> Hauser Report, p. 8. [2.33]

be used to estimate the effect on market share based on the presence and absence of specific functionalities, but apparently Apple did not ask for Mr. Hauser to perform this type of analysis.

**(1) Limited Value to Functionalities Enabled by the Patents-in-Suit**

125. I have reviewed iPhone / iPad buyer surveys commissioned by Apple, Samsung consumer surveys and focus groups, and third-party smartphone studies. I found that the most important smartphone / iPhone / iPad functionalities that drive customer purchase decisions are different from those enabled by the Patents-in-Suit. I also found that the most wanted smartphone features are different from those enabled by the Patents-in-Suit. In addition, Apple and Samsung have not made use of the technology enabled by the Patents-in-Suit in their marketing and advertising materials.

*(a) Smartphone / iPhone / iPad / Tablet Consumers’ Purchasing Factors*

126. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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275 [REDACTED] APLNDC0001218489-608 at ‘491. [5.36]

276 [REDACTED] APLNDC-  
Y0000029092-135 at ‘095. [3.18] See also [REDACTED]

277 [REDACTED] APLNDC-Y0000029136-204 at ‘139. [5.37]  
[REDACTED] APLNDC-  
Y0000027600-675 at ‘608. [5.38] See also [REDACTED]

278 [REDACTED] APLNDC-Y0000026173-256 at ‘182. [6.1]  
[REDACTED] APLNDC-Y0000026173-256  
at ‘181. [6.1]

279 [REDACTED] APLNDC-Y0000026257-347  
at ‘266. [6.2] See also [REDACTED] APLNDC-  
Y0000026348-460 at ‘352. [6.3] See also [REDACTED]

280 [REDACTED] APLNDC-Y0000026461-573 at ‘473-478. [6.4]  
[REDACTED] APLNDC-Y0000026257-347  
at ‘261. [6.2]

[REDACTED]

127. [REDACTED]

[REDACTED]

281 [REDACTED] APLNDC-Y0000026348-460 at  
[REDACTED] ‘352. [6.3] See also [REDACTED] APLNDC-  
Y0000026574-868 at ‘578. [6.5] See also [REDACTED]  
282 [REDACTED] APLNDC-Y0000026687-807 at ‘691. [6.6] [REDACTED] APLNDC-Y0000024334-548  
at ‘339 and ‘353. [6.7]  
283 [REDACTED] APLNDC0001218489-608 at ‘493, ‘497-505. [5.36] See also [REDACTED]  
[REDACTED] APLNDC-Y0000027136-255 at ‘140, ‘144-152.  
[6.8]  
284 [REDACTED], APLNDC0001218489-608 at ‘493, ‘499-498. [5.36] See also [REDACTED]  
285 [REDACTED] APLNDC-Y0000027136-255 at ‘140. [6.8]  
[REDACTED], APLNDC-Y0000027256-340 at  
‘261, ‘266-272. [3.14] See also [REDACTED]  
APLNDC0000036266-348 at ‘274, ‘282-286. [7.1] See also [REDACTED]  
286 [REDACTED] APLNDC-Y0000027341-422 at ‘356-‘359. [3.15]  
[REDACTED] APLNDC0000036172-265 at  
‘183. [7.2]  
287 [REDACTED] APLNDC-  
Y0000025024-147 at ‘063. [3.16]  
288 [REDACTED] APLNDC-  
X0000006506-547 at ‘511, ‘531. [7.3]

[REDACTED]

128. [REDACTED]

129. Samsung also conducts focus groups and consumer preference studies. According to its 2010 Focus Group Interview, “iPhone owners place the most importance on reputation, ability to download application and web browsing capabilities during the purchasing process; design and form factor are also important to these consumers.”<sup>297</sup> “Android owners place the most importance on phone’s uniqueness and cool factor as well as operating system

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289 [REDACTED] APLNDC-  
X0000006506-547 at ‘511, ‘532. [7.3]

290 [REDACTED]  
APLNDC000143059-154 at ‘063, ‘083-‘085. [3.17]

291 [REDACTED] APLNDC0000036349-570 at ‘351.  
[7.4]

292 [REDACTED] APLNDC-Y0000023361-427 at  
‘384, ‘386-‘387. [3.20]

293 [REDACTED] APLNDC-Y0000023361-427 at  
‘388-‘389. [3.20]

294 [REDACTED]  
APLNDC-Y0000023428-578 at ‘490. [7.5] See also [REDACTED]  
[REDACTED] APLNDC-Y0000023579-729 at ‘641. [7.6] See also [REDACTED]  
[REDACTED] APLNDC-  
Y0000023730-907 at ‘816. [7.7]

295 [REDACTED] APLNDC0000036349-  
570 at ‘451. [7.4] See also [REDACTED]

296 [REDACTED] APLNDC-Y0000024130-333 at ‘136. [8.1]  
[REDACTED] APLNDC0000036349-570 at  
‘430. [7.4] See also [REDACTED]  
[REDACTED] APLNDC-Y0000024130-333 at ‘136. [8.1]

297 Users Mobiles America 2010, April 15, 2010, SAMNDCA00221819-877 at ‘851. [8.2]

during the purchasing process; design and form are also somewhat important to these consumers,” according to a Focus Group Interview report.<sup>298</sup> As reported in an August 4, 2010 Samsung study entitled “Understanding the iPad Market,” iPad owners named portability, iTunes compatibility and screen size of the iPad as main factors that affected their purchase decisions.<sup>299</sup>

130. Third party observers also noted a range of reasons for purchasing a smartphone. A survey by independent app store GetJar pointed out that embedded content is an increasingly important factor that influences consumers’ decisions to buy a smartphone.<sup>300</sup> GetJar stated that embedded content is more important in purchase decisions than price, design and touchscreen capability.<sup>301</sup>

131. ChangeWave Research surveyed 1,212 consumers who had purchased a smartphone within the six months prior to November 2, 2010 to explain why they chose their particular model.<sup>302</sup> iPhone owners named Features/Functionality, Upgrade and Ease of Use/Reliability as the top three reasons why they purchased their new Apple smartphone.<sup>303</sup> Features/Functionality, Price/Deals and Android OS were ranked as the top three reasons why buyers chose their new Samsung smartphone.<sup>304</sup>

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<sup>298</sup> Users Mobiles America 2010, April 15, 2010, SAMNDCA00221819-877 at ‘851. [8.2]

<sup>299</sup> Understanding the iPad Market, Samsung, August 4, 2010, SAMNDCA00234369-405 at ‘382. [8.3]

<sup>300</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at ‘486. [8.4]

<sup>301</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at ‘486. [8.4]

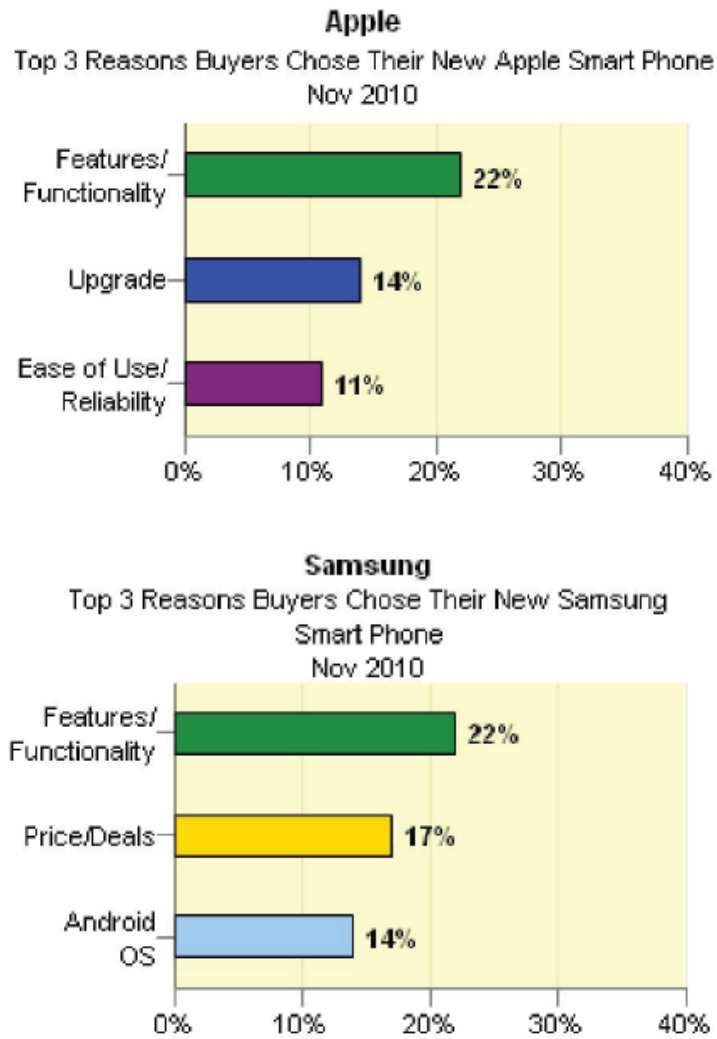
<sup>302</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at ‘395, ‘398. [8.6]

<sup>303</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at ‘399. [8.6]

<sup>304</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at ‘399. [8.6]



**Figure 24: Reasons for Choosing a Smartphone**<sup>305</sup>



132. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>305</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at '399. [8.6]

<sup>306</sup> [REDACTED]

APLNDC0001434059-154 at '083. [3.17]

<sup>307</sup> [REDACTED]

APLNDC0001793637-702 at '657. [13.12]

133. According to a CEA Webinar entitled “State of Tablet Market,” portability was the key reason for tablet purchase.<sup>308</sup> Specifically, size, Android OS, and Flash player capabilities were named as top drivers for purchasing the Galaxy Tab.<sup>309</sup> Resolve Market Research conducted a study on the impact of the iPad on other media and entertainment devices.<sup>310</sup> The results of the study indicated that being “an entertaining and cool device” was the number one reason to own the iPad.<sup>311</sup> A YUDU Media report also noted that “entertainment (56%),” “cool factor (42%),” “convenience (40%)” and “Apple brand (28%)” were the top reasons for wanting the iPad.<sup>312</sup> Participants of a User Performance and Satisfaction study conducted by Strategy Analytics rated “Ease of Use” as the most important feature when considering purchasing a tablet device.<sup>313</sup> “Portability” was the second most important feature, followed by “Display Quality” and “Display Size.”<sup>314</sup>

134. [REDACTED]

<sup>308</sup> CEA Webinar: “State of Tablet Market,” Key Slides & Summary, May 5, 2011, SAMNDCA00237209-223 at ‘215. [8.7]

<sup>309</sup> Post Launch Consumer Insights Summary, March 2011, SAMNDCA00027737-770 at ‘768. [8.8]

<sup>310</sup> The Apple iPad Trends and Statistics, YUDU Media, SAMNDCA00184496-514 at ‘498. [13.10]

<sup>311</sup> The Apple iPad Trends and Statistics, YUDU Media, SAMNDCA00184496-514 at ‘498. [13.10]

<sup>312</sup> The Apple iPad Trends and Statistics, YUDU Media, SAMNDCA00184496-514 at ‘499. [13.10]

<sup>313</sup> Tablet Device Evaluation, August 2, 2010, User Experience & Strategic Marketing, Samsung Telecommunications of America, Strategy Analytics, SAMNDCA00250930-988 at ‘974. [13.11]

<sup>314</sup> Tablet Device Evaluation, August 2, 2010, User Experience & Strategic Marketing, Samsung Telecommunications of America, Strategy Analytics, SAMNDCA00250930-988 at ‘974. [13.11]

<sup>315</sup> [REDACTED] APLNDC0001256422-504 at ‘487. [8.9]

<sup>316</sup> [REDACTED] APLNDC0001256422-504 at ‘487. [8.9]

<sup>317</sup> [REDACTED] APLNDC0001256422-504 at ‘485. [8.9]

<sup>318</sup> [REDACTED] APL-ITC796-0000502479-588 at ‘500. [9.1]

135. [REDACTED]

136. [REDACTED]

*(b) Smartphone and Tablet Desired Features*

137. [REDACTED]

[REDACTED] A Consumer Inside Framework study conducted between June and July 2010 points out that consumers desire a

<sup>319</sup> Deposition of Jared Gosler, February 22, 2012, p. 112. [8.10] See also [REDACTED] APLNDC00010809-809.54 at '809.23. [8.11]

<sup>320</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, p. 422. [9.3] See also [REDACTED] APLNDC0002831037-088 at '058. [4.10]

<sup>321</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, pp. 419-420. [9.3] See also [REDACTED] APLNDC00004618-736 at '646. [11.23]

<sup>322</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, p. 386. [9.3]

<sup>323</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, p. 384. [9.3] See also [REDACTED] APLNDC0001434059-154 at '083. [3.17]

<sup>324</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, pp. 384-385, 440. [9.3] See also Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 60. [9.2]

<sup>325</sup> [REDACTED] APLNDC-Y0000025232-304 at '240, '242. [9.5]

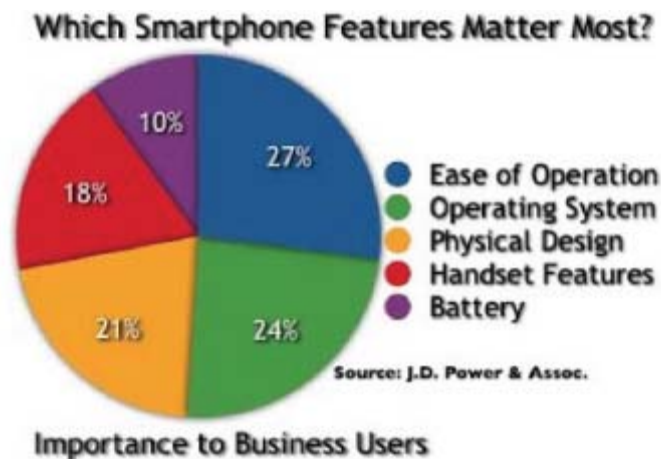
<sup>326</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, p. 366. [9.3] See also [REDACTED] APLNDC-Y0000025232-304 at '243. [9.5]

<sup>327</sup> [REDACTED] APLNDC0001256422-504 at '480. [8.9]

mobile device with reliable performance (such as memory, processor and battery) and network service, multitasking, most up to date technology (3D, video, photo), and compatibility across devices and services.<sup>328</sup>

138. Business users rated Ease of Operation as the most important feature of the smartphone, according to J.D. Power and Associates.<sup>329</sup> Other smartphone features that are important to users include Operating System, Physical Design, Handset Features and Battery Life.<sup>330</sup> In particular, customers are more reluctant to let the battery on their phone run out than they would be on other devices, since this would leave them with no form of communication.<sup>331</sup>

**Figure 25: Smartphone Features Important to Business Uses<sup>332</sup>**



139. Similarly, a 2010 comScore study found that Ease of Use and Length of Battery Life are most wanted smartphone features.<sup>333</sup> New smartphone owners<sup>334</sup> also ranked Applications, Ease of Use and Internet Access as the most loved features of a smartphone.<sup>335</sup>

<sup>328</sup> CIF US Results Report Final, July 23, 2010, Iconmobile Group, SAMNDCA00225505-611 at '507, '531, '549, '561, '576. [9.6]

<sup>329</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5083. [8.5]

<sup>330</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5183. [8.5]

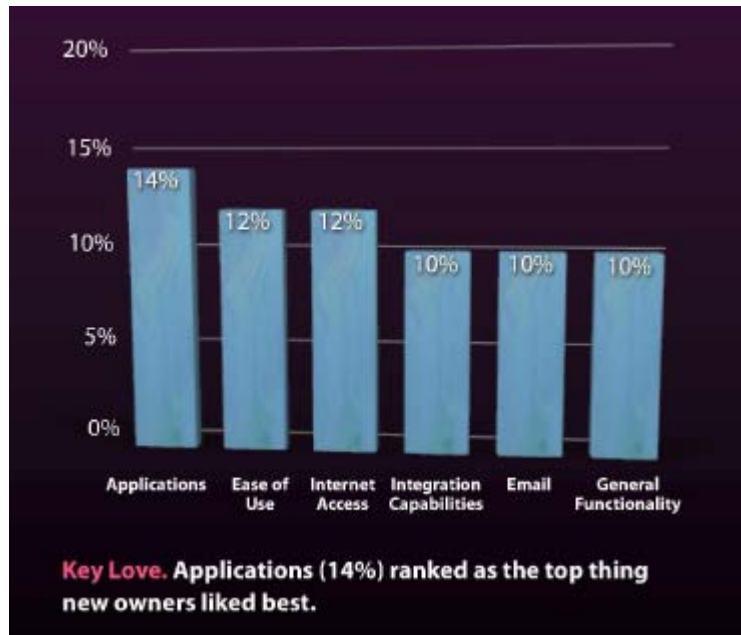
<sup>331</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at '741. [9.4]

<sup>332</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5183. [8.5]

<sup>333</sup> comScore, Using Consumer Insights to Cover Opportunities in Next Generation Mobile Devices, Donovan Mark, CES 2010, SAMNDCA00230720-761 at '756. [9.7]

<sup>334</sup> New smartphone owners are defined as customers that purchased a smartphone within 6 months prior to May 2010, Samsung Lovemark Mobile & Web Research, June 23, 2010, SAMNDCA00207695-765 at '732. [9.8]

**Figure 26: Most Loved Smartphone Features, May 2010**<sup>336</sup>



140. In November 2010, ChangeWave Research queried smartphone buyers on the specific feature they liked best about their smartphones.<sup>337</sup> Ease of Use was the top thing new owners liked most about their smartphones, followed by Applications and Screen.<sup>338</sup>

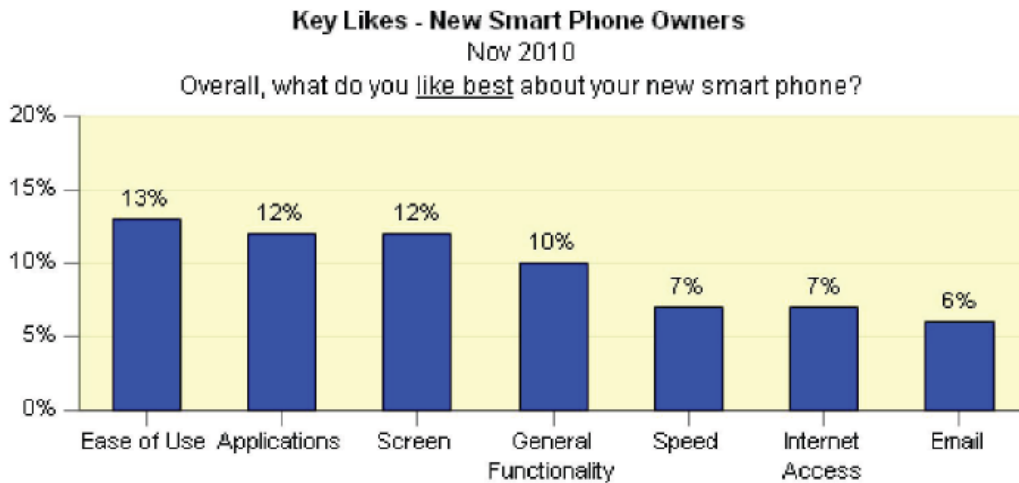
<sup>335</sup> New smartphone owners are defined as customers that purchased a smartphone within 6 months prior to May 2010. Samsung Lovemark Mobile & Web Research, June 23, 2010, SAMNDCA00207695-765 at '736. [9.8]

<sup>336</sup> New smartphone owners are defined as customers that purchased a smartphone within 6 months prior to May 2010, Samsung Lovemark Mobile & Web Research, June 23, 2010, SAMNDCA00207695-765 at '736. [9.8]

<sup>337</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at '397. [8.6]

<sup>338</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at '397. [8.6]

**Figure 27: Best Feature of a Smartphone<sup>339</sup>**



141. Consumers increasingly value handsets that can perform more complicated processes.<sup>340</sup> According to ABI Research, a mobile handset has become an extension of the user’s home computer.<sup>341</sup> For example, the App store can be accessed from iTunes from a Mac/PC, an iPod and an iPhone. According to System Concepts, iTunes has played a key role in the success of the iPhone.<sup>342</sup> According to the study, iTunes has made the iPhone familiar and easy to use.<sup>343</sup> According to a Smartphone Market Opportunity Study conducted by Ipsos Marketing, larger screen, multitasking, and portability are named as the most preferred features of a smartphone.<sup>344</sup>

142. Smartphone users also utilize faster speeds to use more services, such as video calls, web, streaming, VoIP, etc.<sup>345</sup> System Concepts predicts that 4G services may become

<sup>339</sup> ChangeWave Research: Consumer New Smart Phone Owners Survey, November 4, 2010, SAMNDCA00235395-419 at ‘397. [8.6]

<sup>340</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at ‘5063. [8.5]

<sup>341</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at ‘5063. [8.5]

<sup>342</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at ‘742. [9.4]

<sup>343</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at ‘742. [9.4]

<sup>344</sup> Smartphone Market Opportunity Study Final Report, April 2011, Prepared for Samsung Electronics, SAMNDCA00226589-816 at ‘697. [9.9]

<sup>345</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at ‘745. [9.4]

standard within the next few years.<sup>346</sup> Smartphone customers also expect Wi-Fi as a standard capability of a smartphone.<sup>347</sup>

143. According to a 2010 Focus Group Interview conducted by Samsung, smartphone users consider Web Browsers to be critical features because they provide a sense of security and instantaneous access to the world.<sup>348</sup> The GPS feature is extremely important to smartphone users in the car.<sup>349</sup> Taking Pictures is considered to be of high importance to users who like to take pictures on the go and send them to their family and friends instantaneously.<sup>350</sup>

144. A study by Kelsey Group also shows an increase in mobile search activities such as downloading or looking at maps/directions, searching the internet for products and services, finding information about movies and other entertainment, and connecting to a social network (Facebook/MySpace) in the past years.<sup>351</sup> Similarly, according to IBM research, an increasing number of users are researching products they plan to purchase through the mobile web.<sup>352</sup>

145. A 2011 Wireless Smartphone Satisfaction Study conducted by J.D. Power and Associates finds that the top smartphone features desired on owners' future device include memory expansion, push-to-talk capability, touch screens and voice recognition.<sup>353</sup> According to the study, Apple smartphone users are most interested in further developing their handset's ability to capture and record video and have memory expansion options.<sup>354</sup>

146. [REDACTED]

<sup>346</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at '745. [9.4]

<sup>347</sup> Top Trends for the Next Year and Beyond, System Concepts, 2009 Mobile UX Forecast, SAMNDCA00214739-745 at '745. [9.4]

<sup>348</sup> Users Mobiles America 2010, April 15, 2010, SAMNDCA00221819-877 at '827-828, '840. [8.2]

<sup>349</sup> Users Mobiles America 2010, April 15, 2010, SAMNDCA00221819-877 at '840. [8.2]

<sup>350</sup> Users Mobiles America 2010, April 15, 2010, SAMNDCA00221819-877 at '840. [8.2]

<sup>351</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5060. [8.5]

<sup>352</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5068. [8.5]

<sup>353</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at '360 and '366. [13.9]

<sup>354</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at '360 and '367. [13.9]

[REDACTED]

(c) *Lack of Patents’ Use for Overall Marketing Objectives*

147. As is evidenced in the paragraphs below, Apple and Samsung have made little or no use of the technology enabled by the Patents-in-Suit in their marketing and advertising materials.

148. Apple’s iPhone 3G and 3GS advertising campaigns [REDACTED]

[REDACTED]

[REDACTED] the iPhone 3GS magazine advertising reads:<sup>358</sup>

The iPhone 3GS. With amazing new features like video recording and voice control, plus over 50,000 apps on the App Store. It’s the fastest, most powerful iPhone yet.

149. [REDACTED]

[REDACTED]

[REDACTED] The iPhone 3GS ad reads, “From picking the perfect bouquet to booking a spa treatment, there are all kinds of apps on the App Store to help make Mother’s Day special this year.”<sup>361</sup>

150. [REDACTED]

[REDACTED]

355 [REDACTED] APL-ITC796-0000502479-588 at ‘489 and ‘518. [9.1]

356 [REDACTED] APL-ITC796-0000502479-588 at ‘547. [9.1]

357 [REDACTED] APLNDC0001324059-066 at ‘061-062. [9.10]

358 [REDACTED] APLNDC0001324015. [9.11]

359 [REDACTED] APLNDC0001324059-066 at ‘065. [9.10] See also

360 [REDACTED] APLNDC0001323952. [9.12] See also [REDACTED]

[REDACTED] APLNDC0001324014. [9.13]

[REDACTED] APLNDC0001324059-066 at ‘065. [9.10] See also [REDACTED]

[REDACTED] APLNDC0001324010. [9.14] See also [REDACTED]

[REDACTED] APLNDC0001323981. [9.15]

361 [REDACTED] APLNDC0001323981. [9.15]

362 Deposition of Stephanie Chen, March 8, 2012, p. 118. [12.24]

363 Deposition of Stephanie Chen, March 8, 2012, pp. 21, 28, 121. [12.24]



[REDACTED]  
[REDACTED]  
[REDACTED]

151. [REDACTED]

[REDACTED] According to Samsung, Apple spent \$286 million advertising apps available on the iPhone 3G and 3GS.<sup>368</sup>

152. Apple's advertising campaign for iPhone 4 [REDACTED]

[REDACTED]<sup>9</sup> The iPhone 4 magazine ad's tagline is "Introducing FaceTime video calling. Smile." [REDACTED]

[REDACTED]  
[REDACTED]

153. Later, the iPhone 4S advertising campaign [REDACTED]

[REDACTED]  
[REDACTED] The iPhone 4S magazine ad's tagline reads, "You speak. Siri helps. Say hello to the most amazing iPhone yet."<sup>374</sup>

154. "Despite the myriad of functionality packaged in the iPad, Apple has made the Internet experience the heading feature [of iPad]," according to an August 4, 2010 Samsung study entitled "Understanding the iPad Market."<sup>375</sup> Apple spent significant time giving a simple

<sup>364</sup> Deposition of Stephanie Chen, March 8, 2012, p. 121. [12.24]

<sup>365</sup> Deposition of Stephanie Chen, March 8, 2012, p. 123. [12.24]

<sup>366</sup> Deposition of Stephanie Chen, March 8, 2012, p. 123. [12.24]

<sup>367</sup> Apple iPhone TV Spending by Marketing Message, December 1, 2011, SAMNDCA00235640-643 at '641. [9.16]

<sup>368</sup> Apple iPhone TV Spending by Marketing Message, December 1, 2011, SAMNDCA00235640-643 at '643. [9.16]

<sup>369</sup> [REDACTED] APLNDC-X0000007673. [9.17]

<sup>370</sup> [REDACTED] APLNDC0001218644-645 at '645. [9.18]

<sup>371</sup> Deposition of Stephanie Chen, March 8, 2012, p. 125. [12.24]

<sup>372</sup> [REDACTED] APLNDC-X0000007735. [9.19] See also [REDACTED]  
[REDACTED] APLNDC-X0000007736. [9.20] See also [REDACTED] APLNDC-X0000007737.  
[9.21]

<sup>373</sup> Competitor Marketing Communication Analysis, October 2011, SAMNDCA00228621-742 at '624. [12.25]

<sup>374</sup> [REDACTED] APLNDC-X0000007735. [9.19] See also [REDACTED]  
[REDACTED] APLNDC-X0000007736. [9.20] See also [REDACTED] APLNDC-X0000007737.  
[9.21]

<sup>375</sup> Understanding the iPad Market, Samsung, August 4, 2010, SAMNDCA00234369-405 at '382. [8.3]

demonstration of browsing the web on the iPad when it was introduced in January 2010.<sup>376</sup> As stated in the Samsung study, "Apple's focus on this may indicate its recognition of web browsing as a common element that all users of the iPad will take advantage of, regardless of other interests."<sup>377</sup> Apple realized that marketing with a focus on the internet experience may attract a wide variety of consumers, as this functionality will appeal to nearly all buyers.<sup>378</sup>

155. In addition, Apple headlined iPad as "[a]mazingly thin and light" on its website.<sup>379</sup> Advanced Design, Great Built-in Applications, iOS and iCloud were listed as the key features of iPad.<sup>380</sup>

156. Samsung has also launched various print ads and TV campaigns for its products. Samsung Galaxy Tab 10.1 banners and posters highlighted Clear Readability, Rich Apps Experience, Fast Web Browsing and Crisp Resolutions as key features of the tablet.<sup>381</sup> A September 2011 Galaxy Tab 10.1 print ad marketed the following features of the tablet:<sup>382</sup>

Amazingly thin, fast and light. With Android 3.1, Honeycomb and Adobe Flash Player. It's the tablet that's changing the tablet.

157. Similarly, an August 2011 TV commercial for Galaxy Tab pointed out as its benefits that it is "thinner, lighter, faster," and provides an access to millions of web videos with Adobe flash:<sup>383</sup>

People, it's time for better tablet. It's time to tab. Time for sharper pictures and better details. Access to millions more web videos with Adobe flash. And better, easier and multi-tasking. The thinner, lighter, faster. Samsung GALAXY Tab. That's the wonder of Samsung.

158. [REDACTED]

<sup>376</sup> Understanding the iPad Market, Samsung, August 4, 2010, SAMNDCA00234369-405 at '391. [8.3]

<sup>377</sup> Understanding the iPad Market, Samsung, August 4, 2010, SAMNDCA00234369-405 at '391. [8.3]

<sup>378</sup> Understanding the iPad Market, Samsung, August 4, 2010, SAMNDCA00234369-405 at '394. [8.3]

<sup>379</sup> [REDACTED] APLNDC0001322822. [9.22]

<sup>380</sup> [REDACTED] APLNDC0001322822. [9.22]

<sup>381</sup> Galaxy Tab Launch in Best Buy on June 8<sup>th</sup>, Samsung Electronics America, Consumer Business Division, June 2, 2011, SAMNDCA00027416-429 at '426. [9.23]

<sup>382</sup> Competitor Marketing Communication Analysis, August – September 2011, SAMNDCA00228434-609 at '592. [10.1]

<sup>383</sup> Competitor Marketing Communication Analysis, August – September 2011, SAMNDCA00228434-609 at '590. [10.1]

<sup>384</sup> Deposition of Jared Gosler, February 22, 2012, pp. 27, 87, 90. [8.10]

[REDACTED]

159. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

...

[REDACTED]

[REDACTED]

[REDACTED]

160. [REDACTED]

[REDACTED]

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<sup>385</sup> Deposition of Jared Gosler, February 22, 2012, pp. 89, 91. [8.10]

<sup>386</sup> Deposition of Eric Jue, February 24, 2012, pp. 45-51. [11.20]

<sup>387</sup> Deposition of Eric Jue, February 24, 2012, pp. 18, 45. [11.20]

<sup>388</sup> Deposition of Eric Jue, February 24, 2012, pp. 18, 45. [11.20]

<sup>389</sup> Deposition of Eric Jue, February 24, 2012, pp. 48-49. [11.20]

<sup>390</sup> Deposition of Eric Jue, February 24, 2012, p. 51. [11.20]

<sup>391</sup> Deposition of Eric Jue, February 24, 2012, pp. 87-88, 91-92. [11.20]

<sup>392</sup> Deposition of Eric Jue, February 24, 2012, pp. 108-110. [11.20]

161. Mr. Musika appears not to have considered these facts in arriving at his damages conclusions.

**b) Samsung has acceptable, non-infringing alternatives available for the asserted intellectual property.**

162. This Panduit factor asks whether or not acceptable, non-infringing substitutes for the patented invention existed during the period of infringement. The Grain Processing court discusses the importance of considering non-infringing alternatives.<sup>393</sup>

Reconstructing the market, by definition a hypothetical enterprise, requires the patentee to project economic results that did not occur. To prevent the hypothetical from lapsing into pure speculation, this court requires sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture. [...] Within this framework, trial courts, with this court's approval, consistently permit patentees to present market reconstruction theories showing all of the ways in which they would have been better off in the "but for world," and accordingly to recover lost profits in a wide variety of forms. [...] In sum, courts have given patentees significant latitude to prove and recover lost profits for a wide variety of foreseeable economic effects of the infringement.

By the same token, a fair and accurate reconstruction of the "but for" market also must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed. Without the infringing product, a rational would-be infringer is likely to offer an acceptable noninfringing alternative, if available, to compete with the patent owner rather than leave the market altogether. The competitor in the "but for" marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner. Moreover, only by comparing the patented invention to its next-best available alternative(s) - regardless of whether the alternative(s) were actually produced and sold during the infringement - can the court discern the market value of the patent owner's exclusive right, and therefore his expected profit or reward, had the infringer's activities not prevented him from taking full economic advantage of this right. [...] Thus, an accurate reconstruction of the hypothetical "but for" market takes into account any alternatives available to the infringer.

163. Mr. Musika concluded in his report that "non-infringing substitutes did exist in some periods."<sup>394</sup> Mr. Musika reports in his Exhibit 20 the amount of time that he has concluded it would take for Samsung to return to the market with a non-infringing alternative: 1 month for

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<sup>393</sup> *Grain Processing Corporation v. American Maize-Products Company*, CAFC, 185 F.3d 1341, August 4, 1999, p. 7 (citations omitted). [14.3]

<sup>394</sup> Musika Report, p. 39. [2.2]

the ‘163 and ‘381 Patents; 6 months for the ‘915 Patent; 8 months for the Electronic Device Design Patents and all trade dress; and for the ‘607 Patent, Mr. Musika concludes that Samsung would have a design around available after December 31, 2010 for the tablets with screens of 8 inches or less, but that Samsung does not have a design around for tablets with screens of 10 inches or larger.<sup>395</sup>

164. I and my staff have had discussions with Samsung engineers and Samsung’s technical experts for the utility patents, and my understanding of the technology and Samsung’s design around alternative for each utility patent is summarized in Georgia-Pacific factor 9. The only patents for which Samsung would not have an acceptable design around alternative available within one month of the initial infringement are the ‘607 and ‘129 Patents. Therefore, as described below, I consider lost profits for these patents for a limited period of time while Samsung develops its non-infringing alternative.

165. For all other utility patents, the acceptable, available design arounds that would generally take between two to four weeks to design lead me to conclude that Apple is not entitled to lost profits on these utility patents. Samsung generally announces its products several weeks prior to the first sale of the products. This would trigger the hypothetical negotiation as the announcing of its products would constitute an offer to sell the allegedly infringing products and give Apple notice of Samsung’s intent to bring these products to market.

166. Even if consumers were forced to wait a couple weeks in the “but-for” world versus when products were actually first sold, I conclude that Apple would not have sold any additional products related to this delay. I note that this conclusion may appear different than my conclusion discussed below that Apple would not have made additional sales due to a lack of capacity, even if that capacity constraint would have only shifted the potential sale date by a few weeks. The reason for the apparent difference is that in the case of Samsung’s sales, I am analyzing a group of customers that *affirmatively* selected the accused product as their phone of choice, and therefore I conclude that the consumer would have made the same selection even if it was delayed by a couple weeks. However, in the analysis of whether Apple could have made additional sales, I am analyzing a group of customers that *affirmatively* selected to NOT purchase an iPhone. I therefore conclude that the consumer would have made the same selection to NOT purchase an iPhone if the customer would be forced to wait a couple weeks.

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<sup>395</sup> Musika Report, Exhibit 20. [2.2]

167. As discussed in *Georgia-Pacific* factor 9, Samsung also has acceptable, non-infringing alternatives to every asserted design IP. This is evidenced by the accused products themselves given a) each asserted design IP element is not asserted against several smartphones within the accused product set, b) Samsung's smartphones that are not accused in this lawsuit, and c) smartphones that are sold by other carriers that have not been accused of infringement of Apple's design IP.

168. As admitted by Mr. Musika,<sup>396</sup> when Samsung has an acceptable, non-infringing alternative, Samsung's redesigned products would enjoy the same sales as the earlier products that Samsung actually sold in the market. Therefore, Apple is not entitled to lost profits during the periods that Samsung has a non-infringing alternative available to it.

**c) Mr. Musika has not proven that Apple has sufficient capacity for all time periods.**

169. As part of his lost profits analysis, Mr. Musika evaluated "Apple's ability to handle the excess demand created by the need to supply iPhones and iPads in the 'but-for' market ..."<sup>397</sup> This analysis provides a crucial stepping stone for a lost profits calculation because without the capacity to manufacture, supply, and sell more units in the "but for" world, a plaintiff could not claim that it suffered lost profits due to the alleged infringement. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

170. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>396</sup> Musika Report, p. 40. [2.2]

<sup>397</sup> Musika Report, p. 40. [2.2]

<sup>398</sup> Musika Report, Exhibit 26. [2.2]

<sup>399</sup>

[REDACTED] APLNDC-Y0000055417. [5.3] See also Apple Form 10Q for the Quarter Ending June 26, 2010, p. 35. [5.4]

[REDACTED]

171. [REDACTED]

[REDACTED]

172. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

173. [REDACTED]

[REDACTED]

400 [REDACTED]

401 [REDACTED]

APLNDC-Y0000051621. [5.6] APLNDC-Y0000051622. [5.5] See also [REDACTED]

402 Deposition of Tony Blevins, April 3, 2012, pp. 23-24. [5.7]

[REDACTED]

174. [REDACTED]

175. Notwithstanding the oversights elucidated above, Mr. Musika concluded that “Apple demonstrated its ability to have capacity to accommodate additional units ...”<sup>406</sup> However, as evidenced above, Mr. Musika’s analysis is high-level and not specific enough to draw strong conclusions. [REDACTED]

(a) *iPhone 4*

176. On June 29, 2010, five days following the June 24 launch of the iPhone 4,<sup>407</sup> market research firm iSuppli stated that “Apple Inc.’s difficulties in satisfying the massive demand for the iPhone 4 [were] raising questions about the company’s management of the supply chain and prompting frustrated customers to consider competitors’ smart phones ...”<sup>408</sup> iSuppli observed that “[t]he huge early demand for the iPhone 4 ... has come at some cost to Apple,” noting that with 600,000 pre-orders on the first day of availability, “the Apple Store and

<sup>403</sup> Musika Report, Exhibits 17.2 and 26. [2.2]

<sup>404</sup> Musika Report, Exhibits 17.2 and 27. [2.2]

<sup>405</sup> Musika Report, p. 13. [2.2]

<sup>406</sup> Musika Report, p. 41. [2.2]

<sup>407</sup> “Preparing for iPhone 4 Launch Day (FAQ),” CNET, June 23, 2010, <[http://news.cnet.com/8301-30686\\_3-20008509-266.html](http://news.cnet.com/8301-30686_3-20008509-266.html)>. [5.11]

<sup>408</sup> “Apple’s iPhone 4 Delivery Difficulties in Might Open Up Company to Risk,” iSuppli, June 29, 2010, <<http://www.isuppli.com/Mobile-and-Wireless-Communications/News/Pages/Apples-iPhone-4-Delivery-Difficulties-in-Might-Open-Up-Company-to-Risk.aspx>>. [5.12]



partner carrier AT&T Inc. very quickly became overwhelmed, prompting both to stop taking orders just one day after the pre-order was available.”<sup>409</sup> Notably, this shortage prompted an apology by the late CEO Steve Jobs.<sup>410</sup>

177. A senior analyst at iSuppli was quoted as saying that “[c]onsumers, questioning Apple’s supply chain management capability, have started looking for alternative devices.”<sup>411</sup> Though, as pointed out by iSuppli, “the ambitious plans of Apple’s competitors – and even Apple’s own stumbles in delivering its much heralded product – probably pose no deterrent to hordes of devoted Apple fans aching to get their hands on the next available iPhone 4.”<sup>412</sup> Still, “the moves from a battle-weary – yet determined – competition to step up its game [were] all too real and could pose a real risk to Apple.”<sup>413</sup>

178. [REDACTED]

179. [REDACTED]

<sup>409</sup> “Apple’s iPhone 4 Delivery Difficulties in Might Open Up Company to Risk,” iSuppli, June 29, 2010, <<http://www.isuppli.com/Mobile-and-Wireless-Communications/News/Pages/Apples-iPhone-4-Delivery-Difficulties-in-Might-Open-Up-Company-to-Risk.aspx>>. [5.12]

<sup>410</sup> “iPad 2 shortages continue, relief 1-2 months away,” Computerworld, March 15, 2011, <[http://www.computerworld.com/s/article/9214618/iPad\\_2\\_shortages\\_continue\\_relief\\_1\\_2\\_months\\_away](http://www.computerworld.com/s/article/9214618/iPad_2_shortages_continue_relief_1_2_months_away)>. [5.8]

<sup>411</sup> “Apple’s iPhone 4 Delivery Difficulties in Might Open Up Company to Risk,” iSuppli, June 29, 2010, <<http://www.isuppli.com/Mobile-and-Wireless-Communications/News/Pages/Apples-iPhone-4-Delivery-Difficulties-in-Might-Open-Up-Company-to-Risk.aspx>>. [5.12]

<sup>412</sup> “Apple’s iPhone 4 Delivery Difficulties in Might Open Up Company to Risk,” iSuppli, June 29, 2010, <<http://www.isuppli.com/Mobile-and-Wireless-Communications/News/Pages/Apples-iPhone-4-Delivery-Difficulties-in-Might-Open-Up-Company-to-Risk.aspx>>. [5.12]

<sup>413</sup> “Apple’s iPhone 4 Delivery Difficulties in Might Open Up Company to Risk,” iSuppli, June 29, 2010, <<http://www.isuppli.com/Mobile-and-Wireless-Communications/News/Pages/Apples-iPhone-4-Delivery-Difficulties-in-Might-Open-Up-Company-to-Risk.aspx>>. [5.12]

<sup>414</sup> [REDACTED] APL7940000082356-378 at ‘358. [5.20]

<sup>415</sup> [REDACTED] APL7940000082356-378 at ‘358. [5.20]

<sup>416</sup> [REDACTED] APL7940001120491-512 at ‘493. [5.21]

[REDACTED]

Figure 28: [REDACTED]

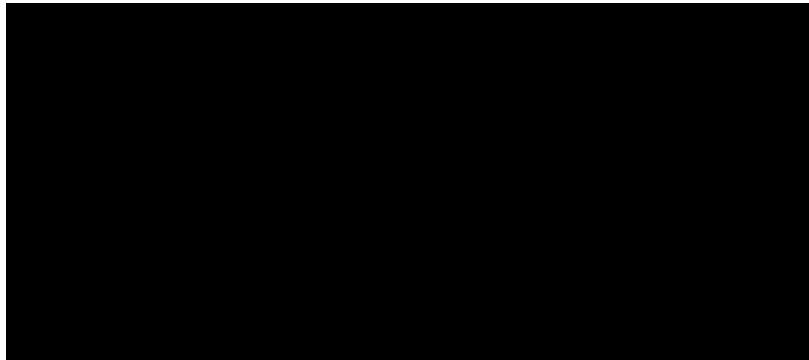


180. [REDACTED]

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417 [REDACTED] APL7940001120491-512 at '493.  
[5.21]  
418 [REDACTED] APL7940001120491-512 at '495.  
[5.21]  
419 [REDACTED] APL7940001120491-512 at '499.  
[5.21]  
420 [REDACTED] APL7940001120491-512 at '499.  
[5.21]  
421 [REDACTED] APL7940001120491-512 at '499.  
[5.21]  
422 [REDACTED] APL7940000102312-332 at '320.  
[5.23]  
423 [REDACTED] APL7940000102312-332 at '320.  
[5.23]

Figure 29:



181. In light Apple's iPhone 4 supply challenges, Peter Oppenheimer, Apple's CFO, reflected on these constraints during the introductory remarks of Apple's Q1 2011 earnings call held on January 18, 2011. Notably, Mr. Oppenheimer stated that, at the time, Apple "continue[d] to have a sizable backlog, and believe[d] [it] could have sold even more iPhones if [it] had been able to supply them."<sup>425</sup> These remarks came more than six months after the iPhone 4's release, indicating multiple months during which Apple was unable to meet demand for this device.

182. During the same earnings call, Tim Cook, Apple's COO at the time, noted that what Apple had been able to do with regard to the supply of its iPhone was "not enough."<sup>426</sup> Apple "still [had] a significant backlog" and was "working around-the-clock to build more" iPhones.<sup>427</sup> Foreshadowing the success of the Verizon iPhone 4, Mr. Cook said that he was "not going to predict when supply and demand [would] meet" because Apple "believe[d] the reaction and results from the Verizon customers [would] be huge ..."<sup>428</sup> Mr. Cook's statement

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<sup>424</sup> [REDACTED] APL7940000102312-332 at '320.  
[5.23]

<sup>425</sup> "Apple Management Discusses Q1 2011 Results – Earnings Call Transcript," Seeking Alpha, January 18, 2011, <<http://seekingalpha.com/article/247197-apple-management-discusses-q1-2011-results-earnings-call-transcript>>. [5.13]

<sup>426</sup> "Apple Management Discusses Q1 2011 Results – Earnings Call Transcript," Seeking Alpha, January 18, 2011, <<http://seekingalpha.com/article/247197-apple-management-discusses-q1-2011-results-earnings-call-transcript>>. [5.13]

<sup>427</sup> "Apple Management Discusses Q1 2011 Results – Earnings Call Transcript," Seeking Alpha, January 18, 2011, <<http://seekingalpha.com/article/247197-apple-management-discusses-q1-2011-results-earnings-call-transcript>>. [5.13]

<sup>428</sup> "Apple Management Discusses Q1 2011 Results – Earnings Call Transcript," Seeking Alpha, January 18, 2011, <<http://seekingalpha.com/article/247197-apple-management-discusses-q1-2011-results-earnings-call-transcript>>. [5.13]

proved correct; fewer than 24 hours after it was released for preorder on February 3, 2011, Verizon ceased taking such orders for its version of the iPhone 4.<sup>429</sup>

*(b) iPad 2*

183. Apple released its second generation iPad on March 11, 2011 both online and via retail stores.<sup>430</sup> Just four days later on March 15, 2011, reports indicated that the shipping delay for new orders had reached four to five weeks.<sup>431</sup> One analyst, Brian Marshall of Gleecher & Co., characterized the shipping delay: "Five weeks is pretty intense."<sup>432</sup>

184. Apple's management discussed the short supply of the iPad 2 during an earnings call on April 20, 2011, 40 days after its release.<sup>433</sup> Mr. Cook stated that, at the time, Apple was "still amazed that [it was] heavily backlogged not only at the end of the quarter but also up to date."<sup>434</sup> Later on during the same call, Mr. Cook expressed the size of the iPad 2 shortage: "the iPad [2] [had] the mother of all backlogs that [Apple was] working very, very hard to get out to customers as quickly as [it could]."<sup>435</sup>

185. Potentially exacerbating the constraint on iPad 2 supply, reports surfaced that the plant which manufactured around 20 to 30% of iPad 2s had suffered an explosion two months

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<sup>429</sup> "Verizon iPhone 4: Sold Out," Mobile Marketing Watch, February 4, 2011, <<http://www.mobilemarketingwatch.com/verizon-iphone-4-sold-out-13001/>>. [5.14]

<sup>430</sup> "iPad 2 Release Day: How To Get Apple's New Tablet," Huffington Post, <[http://www.huffingtonpost.com/2011/03/10/ipad-2-release-day-2011\\_n\\_834017.html?view=print](http://www.huffingtonpost.com/2011/03/10/ipad-2-release-day-2011_n_834017.html?view=print)>. [5.28]

<sup>431</sup> "iPad 2 shortages continue, relief 1-2 months away," Computerworld, March 15, 2011, <[http://www.computerworld.com/s/article/9214618/iPad\\_2\\_shortages\\_continue\\_relief\\_1\\_2\\_months\\_away](http://www.computerworld.com/s/article/9214618/iPad_2_shortages_continue_relief_1_2_months_away)>. [5.8]

<sup>432</sup> "iPad 2 shortages continue, relief 1-2 months away," Computerworld, March 15, 2011, <[http://www.computerworld.com/s/article/9214618/iPad\\_2\\_shortages\\_continue\\_relief\\_1\\_2\\_months\\_away](http://www.computerworld.com/s/article/9214618/iPad_2_shortages_continue_relief_1_2_months_away)>. [5.8]

<sup>433</sup> "Apple Management Discusses Q2 2011 Results – Earnings Call Transcript," Seeking Alpha, p. 1, <<http://seekingalpha.com/article/264616-apple-management-discusses-q2-2011-results-earnings-call-transcript>>. [5.29]

<sup>434</sup> "Apple Management Discusses Q2 2011 Results – Earnings Call Transcript," Seeking Alpha, p. 5, <<http://seekingalpha.com/article/264616-apple-management-discusses-q2-2011-results-earnings-call-transcript>>. [5.29]

<sup>435</sup> "Apple Management Discusses Q2 2011 Results – Earnings Call Transcript," Seeking Alpha, p. 13, <<http://seekingalpha.com/article/264616-apple-management-discusses-q2-2011-results-earnings-call-transcript>>. [5.29] Though the citation identifies the "iPad" as the product for which a large backlog existed, given that the call took place in April of 2011, the month after the launch of the iPad 2, I assume that Mr. Cook was referring to the second-generation of Apple's tablet.

after the launch.<sup>436</sup> According to Morgan Stanley analysts, production at the site was halted pending an investigation.<sup>437</sup>

186. A month subsequent to the explosion, a J.P. Morgan report published June 28, 2011, observed that “no model of iPad 2 [was] available for immediate shipping in ANY of Apple’s online stores in its major markets.”<sup>438</sup> (emphasis in original) As J.P. Morgan aptly pointed out, “the shortage of iPad 2[s] provide[d] an opportunity for many vendors ... to enjoy some shelf space at retailers.”<sup>439</sup> J.P. Morgan estimated at the time that the shortage would begin easing in 3Q 2011.<sup>440</sup>

(c) *Testimony of Tony Blevins*

187. [REDACTED]

[REDACTED]

188. [REDACTED]

[REDACTED]

<sup>436</sup> “Hon Hai Precision: Fire at Chendu Plant Likely to Depress iPad 2 Production,” Morgan Stanley, May 22, 2011, p. 1. [5.30]

<sup>437</sup> “Hon Hai Precision: Fire at Chendu Plant Likely to Depress iPad 2 Production,” Morgan Stanley, May 22, 2011, p. 1. [5.30]

<sup>438</sup> “Tablets Part 4: Extent of iPad 2 shortage and what we think will happen when it eases – ALERT,” J.P. Morgan, June 28, 2011, p. 1. [5.31]

<sup>439</sup> “Tablets Part 4: Extent of iPad 2 shortage and what we think will happen when it eases – ALERT,” J.P. Morgan, June 28, 2011, p. 1. [5.31]

<sup>440</sup> “Tablets Part 4: Extent of iPad 2 shortage and what we think will happen when it eases – ALERT,” J.P. Morgan, June 28, 2011, p. 1. [5.31]

<sup>441</sup> Deposition of Tony Blevins, April 3, 2012, pp. 2, 10-11. [5.7]

<sup>442</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, p. 2. [5.32]

<sup>443</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, p. 2. [5.32]

<sup>444</sup> Deposition of Tony Blevins, April 3, 2012, p. 14. [5.7]

[REDACTED]

189. [REDACTED]

190. [REDACTED]

191. [REDACTED]

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<sup>445</sup> Deposition of Tony Blevins, April 3, 2012, p. 15. [5.7]

<sup>446</sup> Deposition of Tony Blevins, April 3, 2012, pp. 15-16. [5.7]

<sup>447</sup> Deposition of Tony Blevins, April 3, 2012, p. 17. [5.7]

<sup>448</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, p. 3. [5.32]

<sup>449</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, p. 3. [5.32]

<sup>450</sup> Deposition of Tony Blevins, April 3, 2012, p. 20. [5.7]

<sup>451</sup> Deposition of Tony Blevins, April 3, 2012, p. 20. [5.7]

<sup>452</sup> Deposition of Tony Blevins, April 3, 2012, p. 22. [5.7]

<sup>453</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, pp. 2-3. [5.32]

<sup>454</sup> Declaration of Tony Blevins in Support of Apple’s Motion for a Preliminary Injunction, October 13, 2011, p. 3. [5.32]

[REDACTED]

192. However, in the hypothetical situation that excludes Samsung from the marketplace, those customers who did, in fact, brave a backlog in order to secure an Apple product are not the customers relevant to the calculation of lost profits. Rather, it is the marginal customer who, in reality, purchased a Samsung accused smartphone or tablet from among the many available options, including the Apple products that were the subject of supply shortages. These customers, now hypothetically unable to purchase the accused Samsung product, would have chosen between alternatives: buy a different Samsung product, buy an Apple product which may take weeks to arrive, buy another manufacturer's product (e.g., HTC, Motorola, Nokia, RIM, etc.), or, forego the purchase altogether and buy no product at all. It is sales to these customers that must be apportioned among the market players in the lost profit's analysis. And it is these customers, who have already showed a real propensity to purchase non-Apple products, who are unlikely to wait weeks for an Apple product when the market presents a multitude of readily available alternatives.+

*(d) Conclusion*

193. Apple has not proven that it had sufficient capacity for the entire damages period. For the iPhone 4 and iPad 2, I conclude that Apple does not have sufficient capacity to make any additional sales for at least the periods until [REDACTED]

[REDACTED]

[REDACTED] I do not believe that Apple has sufficient capacity in periods after these dates, but I do not have sufficient data from Apple to determine whether or not Apple has sufficient capacity.

**4. Even if Mr. Musika were to prove entitlement to lost profits, his lost profits calculations significantly overstate the amount of lost profits.**

**a) Mr. Musika does not take price elasticity of demand into consideration in his lost profits calculation.**

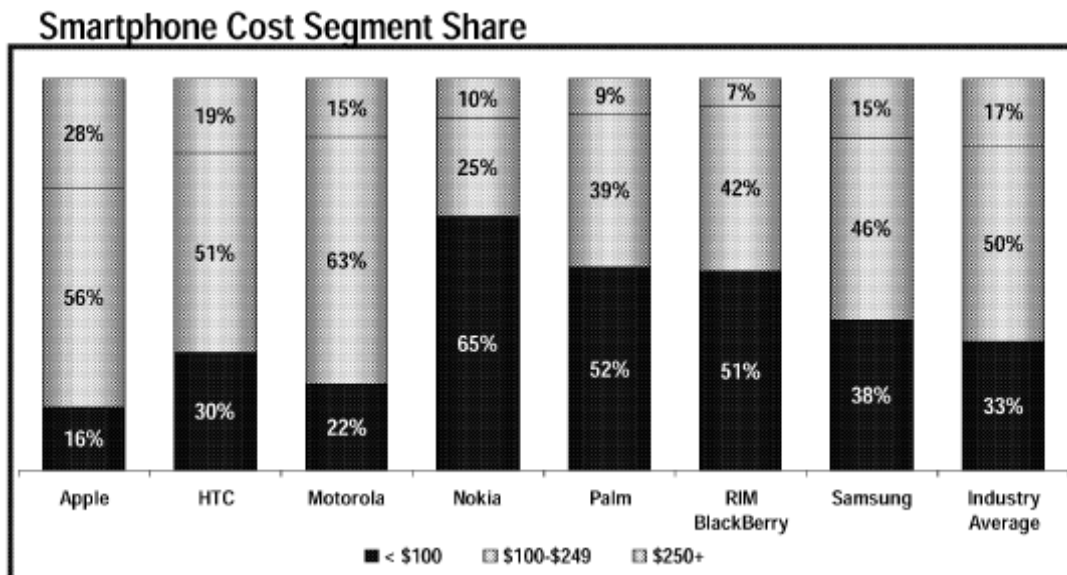
<sup>455</sup> Deposition of Tony Blevins, April 3, 2012, p. 17. [5.7]

<sup>456</sup> Declaration of Tony Blevins in Support of Apple's Motion for a Preliminary Injunction, October 13, 2011, p. 3. [5.32]

194. Mr. Musika is aware that Apple sells the products that were allegedly lost to Samsung at a wholesale price that is significantly higher than the price that Samsung charges its customers. Exhibit 41.2 to Mr. Musika’s report shows that the average sales price of the accused Samsung products is \$358.94 while the average sales price for the products that Apple allegedly lost is [REDACTED]. Apple’s prices are [REDACTED] higher<sup>457</sup> than Samsung’s prices. It is not reasonable to assume that Samsung’s customers would have been willing to spend an additional [REDACTED] on average more than what they actually paid, especially in light of the large number of alternatives. Mr. Musika’s failure to take price elasticity of demand into consideration makes his lost profits calculation unreliable.

195. Strategy Analytics defines the iPhone as a leading-edge premium smartphone.<sup>459</sup> According to Strategy Analytics, Apple is absent from high-volume low-tier device markets.<sup>460</sup> As shown in Figure 30 below, in 2011 Apple mostly operated in \$100-\$249 and \$250+ tier markets.<sup>461</sup>

**Figure 30: Smartphone Cost Segment Share**<sup>462</sup>



<sup>457</sup> [REDACTED]  
<sup>458</sup> [REDACTED]  
<sup>459</sup> Apple – Competitive and Strategic Intelligence, Strategy Analytics, July 20, 2011, SAMNDCA00225633-640 at ‘639. [9.24]

<sup>460</sup> Apple – Competitive and Strategic Intelligence, Strategy Analytics, July 20, 2011, SAMNDCA00225633-640 at ‘639. [9.24]

<sup>461</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘362. [13.9]

<sup>462</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at ‘362. [13.9]



196.

[REDACTED]

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463 [REDACTED]  
APLNDC0002521965-2005 at '967, '969. [10.4]

464 [REDACTED]  
APLNDC0002521965-2005 at '968, '980. [10.4]

465 [REDACTED] APLNDC0002621134-238  
at '139, '220. [10.5]

466 [REDACTED] APLNDC0002621134-238  
at '139. [10.5]

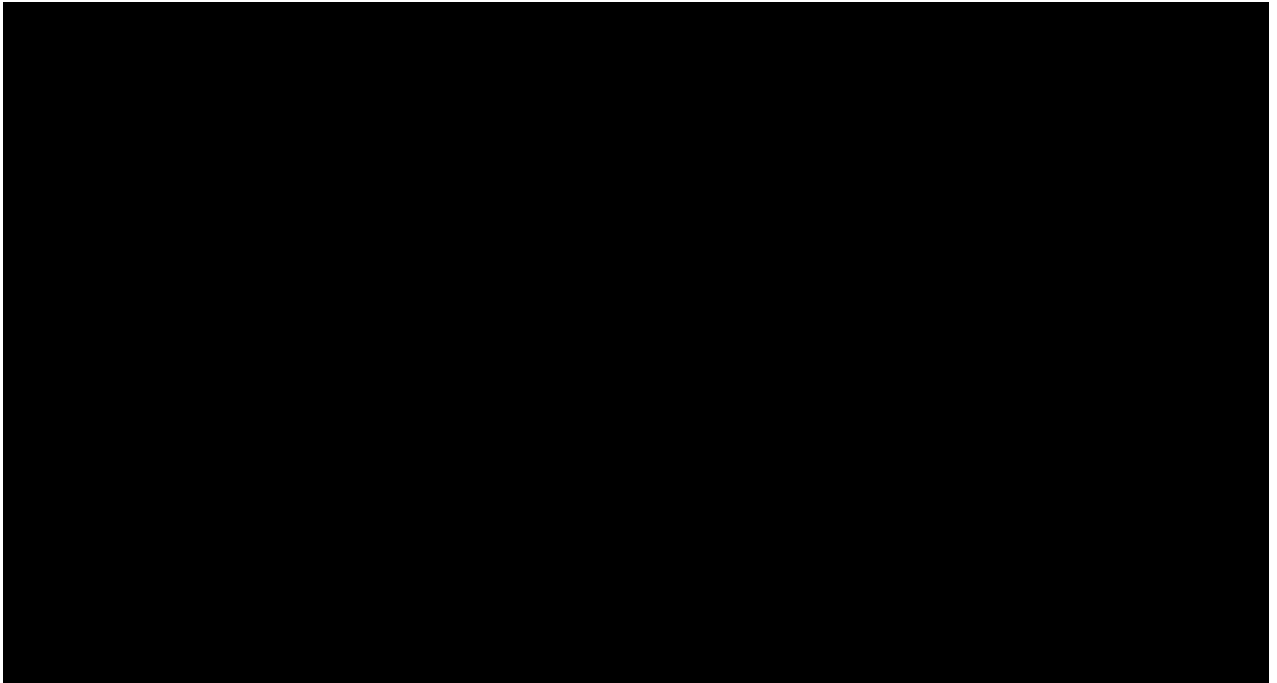
467 [REDACTED]  
APLNDC0002636414-451 at '421. [10.6]

468 [REDACTED]  
APLNDC0002640687-727 at '696. [4.13]

469 [REDACTED]  
APLNDC00010809-809.54, at '809.9. [8.11]

470 [REDACTED]  
APLNDC00010809-809.54 at '809.9, '809.41. [8.11]

Figure 31: [REDACTED]



197. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

198. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

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<sup>471</sup> [REDACTED]  
APLNDC00010809-809.54 at '809.41. [8.11]

<sup>472</sup> [REDACTED] APLNDC-Y0000148505-555 at '513. [4.12]

<sup>473</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at '360. [13.9]

<sup>474</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at '360. [13.9]

<sup>475</sup> [REDACTED] APLNDC-Y0000025148-188, at '157. [10.7]

<sup>476</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 243. [9.2]

<sup>477</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, pp. 243-244. [9.2]

<sup>478</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 245. [9.2]

[REDACTED]

199. In contrast, Samsung offers a large number of lower-end basic handsets.<sup>484</sup> In 2011 Samsung mostly operated in <\$100 and \$100-\$249 smartphone cost tier markets, as presented in Figure 30 above.<sup>485</sup> In a June 8, 2010 System Concepts study commissioned by Samsung, participants of the study commented that one of the benefits of Android is its cost making it available to a broader market than the iPhone.<sup>486</sup> Smartphone customers find Samsung more affordable than Apple, according to J.D. Power and Associates.<sup>487</sup>

200. Indeed, an analysis of the sales data for Samsung's accused products reveals that about 30 percent of the accused products are models that have an average wholesale selling price of less than \$300:

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<sup>479</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 247. [9.2]

<sup>480</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 247. [9.2]

<sup>481</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 248. [9.2]

<sup>482</sup> Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 248. [9.2]

<sup>483</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, p. 451. [9.2]

<sup>484</sup> 2009 Mobile UX Forecast: M.T.O.C., Samsung Electronics Co., LTD, November 10, 2008, SAMNDCA00214969-5201 at '5073. [8.5]

<sup>485</sup> 2011 Wireless Smartphone Satisfaction Study, Management Report, J.D. Power and Associates, March, 2011, SAMNDCA10246338-445 at '362. [13.9]

<sup>486</sup> UX Critique by European Professionals, System Concepts, June 8, 2010, SAMNDCA00202869-933 at '919. [10.2]

<sup>487</sup> 2011 U.S. Wireless Mobile Phone Study Results Presentation Volume2, J.D. Power and Associates, November 15, 2011, SAMNDCA00282033-088 at '080. [13.7]

**Figure 32: STA Smartphones with ASP Less than \$300<sup>488</sup>**

Product	2010 - 2011 Total	
	Quantity	ASP
	[a]	[a]
Exhibit 4G	283,073	\$258
Galaxy Prevail	1,536,840	\$168
Gem	374,101	\$170
Gravity / Gravity Smart	473,669	\$190
Intercept	1,237,560	\$213
Replenish	602,887	\$153
Transform	603,970	\$253
Total Smartphone Products with ASP < \$300	<b>5,112,100</b>	<b>\$194</b>
Total Smartphone Products	<b>17,084,829</b>	
Smartphone Products with ASP < \$300 as a Percent of Total	<b>29.9%</b>	

201. These products are clearly in a very different market segment than the iPhones, which start at significantly higher wholesale prices.<sup>489</sup>

202. iPhone owners have relatively higher disposable income compared to the income of smartphone owner on average.<sup>490</sup> Forty-seven percent of iPhone 3G owners and 50 percent of iPhone 3GS owners have disposable income of more than \$100,000.<sup>491</sup>

<sup>488</sup> [REDACTED]  
APLND00010809-809.54 at '809.41. [8.11]

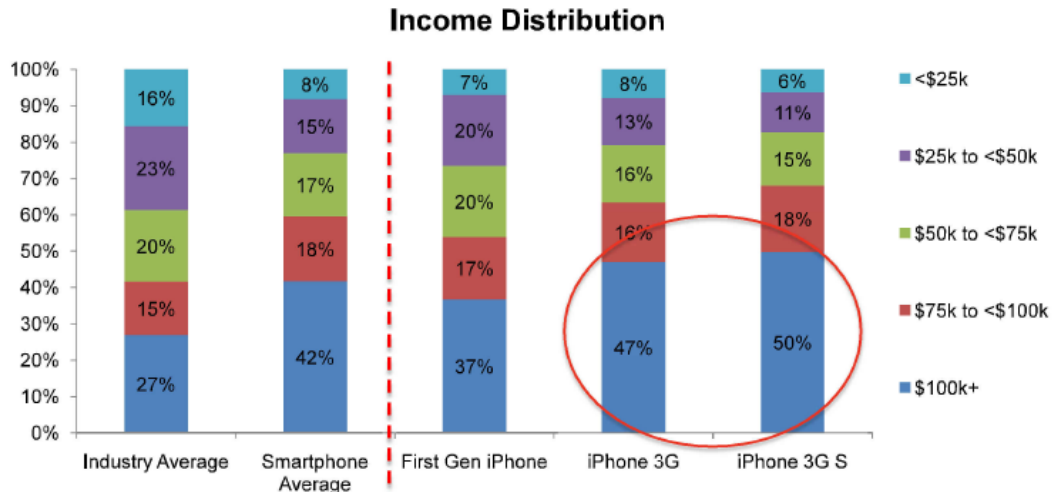
<sup>489</sup> [REDACTED] APLND0000051622. [5.5])

<sup>490</sup> iPhone 4.0 Quick Report & Analysis, Samsung Electronics, June 28, 2010, SAMNDCA00024872-941 at '880. [4.1]

<sup>491</sup> iPhone 4.0 Quick Report & Analysis, Samsung Electronics, June 28, 2010, SAMNDCA00024872-941 at '880. [4.1]

<sup>492</sup> [REDACTED] APLND0001414064-066 at '065. [15.28]

Figure 33: iPhone Owners Income Distribution (Three Month Average Ending April 2010)<sup>493</sup>



203. [REDACTED]

<sup>493</sup> iPhone 4.0 Quick Report & Analysis, Samsung Electronics, June 28, 2010, SAMNDCA00024872-941 at '880. [4.1]

<sup>494</sup> [REDACTED]  
APLNDC0001218857-891 at '859. [10.8]

<sup>495</sup> [REDACTED]  
APLNDC0001218857-891 at '870. [10.8]

<sup>496</sup> [REDACTED]  
APLNDC0001218857-891 at '871. [10.8]

<sup>497</sup> [REDACTED]  
APLNDC0001218857-891 at '872, '889. [10.8]

<sup>498</sup> [REDACTED]  
APLNDC0001218857-891 at '877, '889. [10.8]

<sup>499</sup> [REDACTED]  
APLNDC0001256422-504 at '484. [8.9]

204. [REDACTED]

**b) Mr. Musika includes lost profits for the Galaxy Tab 7.0 (3G), which is not appropriate based on Mr. Musika’s own analysis.**

205. Mr. Musika describes his analysis of the tablet market as follows.<sup>502</sup>

In May 2010, IDC defined tablets “as tablet form factor devices with 7-12in. color displays. They are currently based on ARM processors and run lightweight operating systems such as Apple’s iPhone OS and Google’s Android OS.” This definition was further updated in December 2011 to “move LCD-based devices such as Barnes & Noble’s Nook Color into the media tablet category” from the e-reader category. This change was implemented in the third quarter of 2011. Further, while the Barnes & Noble Nook Color and the Kindle Fire have changed the dynamics of the market, these products by and large compete in a different segment of the tablet market than Samsung and Apple. Accordingly, I have removed their corresponding units from my analysis of IDC’s media tablet data.

206. So, even though most of his calculations simply rely on IDC’s and Strategy Analytics’ definitions of the markets, Mr. Musika specifically changes the market definition adopted by these companies with respect to the Nook Color and Kindle Fire. Mr. Musika does not provide any basis for his assertion that the Nook and Kindle Fire “by and large compete in a different segment of the tablet market than Samsung and Apple.” I can only assume that Mr. Musika excluded these products because they are smaller and less expensive than the iPad / iPad 2. The Nook Color and Kindle Fire are both 7-inch tablets, and their prices are several hundred dollars less than the wifi-only versions of the iPad.<sup>503</sup>

<sup>500</sup> [REDACTED]  
APLND0001386830-899 at \*855. [15.31]

<sup>501</sup> [REDACTED]  
APLND0001386830-899 at \*855. [15.31]

<sup>502</sup> Musika Report, p. 19. [2.2] I have confirmed that Mr. Musika does not include the Kindle Fire and Nook Color units in his lost profits analysis; if he had included those units, then Apple’s market share, and Apple’s lost profits, would have decreased.

<sup>503</sup> CNet Review, Barnes & Noble NOOKcolor, last updated November 17, 2011, accessed on April 14, 2012 at [http://reviews.cnet.com/e-book-readers/barnes-noble-nookcolor/4505-3508\\_7-34204884.html#reviewPage1](http://reviews.cnet.com/e-book-readers/barnes-noble-nookcolor/4505-3508_7-34204884.html#reviewPage1). [15.9] See also CNet Review, Amazon Kindle Fire, last updated November 23, 2011, accessed on April 14, 2012 at [http://reviews.cnet.com/tablets/amazon-kindle-fire/4505-3126\\_7-35022491.html#reviewPage1](http://reviews.cnet.com/tablets/amazon-kindle-fire/4505-3126_7-35022491.html#reviewPage1). [15.10]

207. However, this exact same reasoning applies to the Galaxy Tab 7.0 (3G). The Galaxy Tab 7.0 is also a 7" tablet (as its name implies). In addition, this product includes cellular network capabilities, so it lines up against the 3G-enabled versions of the iPad, which typically sell for a couple hundred dollars more than the wifi-only versions. Indeed, over the period that the Galaxy Tab 7.0 (3G) has been sold for which I have sales data (October 2010 – December 2011), the Galaxy Tab 7.0 (3G) has sold for an average wholesale ASP of about \$450, which is about [REDACTED] the version of the original iPad that can access the 3G cellular network.<sup>505</sup>

208. I agree with Mr. Musika that the Kindle Fire and the Nook Color are not in the same market as the Apple iPad and the Galaxy Tab 10.1, but it is also my opinion that the Galaxy Tab 7.0 (3G) is also in a different market for similar reasons. Therefore, Mr. Musika has improperly included the Galaxy Tab 7.0 (3G) in his lost profits calculations.

**c) Mr. Musika incorrectly uses an assumption that 26% of users select a new carrier when purchasing a cell phone in calculating his lost profits damages.**

209. Mr. Musika's Morflo analysis results in an overstated share of smartphone users switching to the iPhone due to his inclusion of lost units on carriers that did not carry an iPhone. Mr. Musika uses data from a study presenting consumer purchase patterns to conclude that 26 percent of customers that purchased a phone from a carrier that did not carry an iPhone would have considered switching to the iPhone.<sup>506</sup> Since the majority of Mr. Musika's smartphone lost profits relate to 2010 sales when the iPhone was sold only on AT&T, my discussion below focuses on AT&T being the only carrier, but it applies equally to 2011 when the iPhone starts selling on Verizon and later on Sprint.

210. I first note that Mr. Musika characterizes the report as a survey of "2,961 respondents' questions in 2010 that recently purchased a cell phone."<sup>507</sup> This characterization is wrong. The report is dated February 2010, and the "Research Methodology" clearly states that the interviews of the 2,961 respondents "were conducted in July – October 2009."<sup>508</sup>

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<sup>504</sup> [REDACTED] (Schedule 14.2. [1.2])

<sup>505</sup> Deposition of Mark Buckley, February 23, 2012, pp. 232-233. [5.2]

<sup>506</sup> Musika Report, p. 42, Exhibit 28. [2.2]

<sup>507</sup> Musika Report, p. 42. [2.2]

<sup>508</sup> ThinkTech with Google Presentation, Wireless Shoppers 2.0 How Consumers Shop for Wireless Phones Google Complete Clicstream and Survey Based Study. U.S. Feb 2010, p. 3. [5.1]

Therefore, the study was performed approximately one full year ahead of Mr. Musika’s lost profits period.

211. Second, Mr. Musika does not apply the same adjustment to AT&T as he does to other carriers; instead, Mr. Musika assumes that all customers that purchased a Samsung phone on AT&T would have *remained* on AT&T, and claims that Apple would have made its market share of AT&T sales of Samsung’s sales, which ranges from 60 to 68 percent in 2010.<sup>509</sup> If Mr. Musika’s conclusion from the study is to be believed, he should have assumed that 26% of these customers would have decided to switch carriers, and therefore by definition they would not have purchased an iPhone since the iPhone is not offered by any other carrier in 2010. He then could have applied Apple’s AT&T share to the *remaining* AT&T customers, although as I describe in the Android platform discussion below, even this also would have resulted in too high a calculation.

212. Third, the 26 percent figure that Mr. Musika relies upon is artificially inflated because it includes a large number of customers that switch carriers simply to purchase an iPhone. Because the survey is done at a time when the iPhone was only offered on AT&T, any smartphone purchaser that wanted the iPhone but wasn’t an AT&T customer would have had to switch carriers. Since the iPhone was very successful, several customers did exactly this, and an overall market percentage would reflect a relatively high portion of customers that would be willing to switch (i.e., 26 percent). However, this percentage is not reflective of customers that *did not* switch to the iPhone. I.e., any customer that purchased a Samsung accused product from a carrier other than AT&T made the affirmative decision to NOT buy an iPhone. This population would have had a significantly lower probability of switching to a different carrier versus the overall smartphone purchaser population.

213. Finally, Mr. Musika includes in his 26 percent figure a category of purchasers that responded “it was a gift for someone not on my wireless plan,” which increased his figure from 22 percent to 26 percent.<sup>510</sup> However, when purchasing a smartphone as a gift, which often includes significant monthly charges, gift givers would frequently take into account the carrier that the gift receiver is currently on. Therefore, it is inappropriate to assume that ALL of these gift receivers ended up on a different network as Mr. Musika’s calculations assume.

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<sup>509</sup> Musika Report, pp. 42-43, Exhibit 31. [2.2]

<sup>510</sup> ThinkTech with Google Presentation, Wireless Shoppers 2.0 How Consumers Shop for Wireless Phones Google Complete Clicstream and Survey Based Study. U.S. Feb 2010, p. 3. [5.1]



214. Overall, the study relied upon my Mr. Musika is not a reliable source to use for the purpose that Mr. Musika used the study. If the study had excluded iPhone purchasers, then it would have been a more meaningful study because the percentages would not have been tainted by the effect of consumers that would purchase an iPhone no matter what – these customers are clearly not in the population that purchases the accused products.

215. Mr. Musika’s analysis understates the importance of the carrier to consumer smartphone choices. Unlike Apple, Samsung made a commitment to offer its smart phones on every major U.S. carrier. For example, a June 2010 article discussing the launch of the Galaxy S product line noted that “[i]n this era where most phones are exclusive to one U.S. carrier or another, Samsung announced there will be versions of the phone on all major carriers.”<sup>511</sup> Given customers likely prefer to remain on their current carrier, it is unlikely that Samsung’s sales of phones for Verizon in 2010 and T-Mobile and Sprint had any significant effect on iPhone sales. [REDACTED]

[REDACTED]

[REDACTED] I note that recently Apple has started offering its iPhone on additional carriers, likely in response to the impact of consumers’ preferences for carriers.

**d) Mr. Musika’s analysis does not properly take into account platform competition and the fact that Samsung customers chose to not purchase an iPhone.**

216. Other than making an adjustment based on carrier as described above, Mr. Musika simply applies Apple’s market share on a specific carrier if that carrier carries an iPhone and its market-wide market share if that carrier does not carry an iPhone. This approach completely ignores the important dynamic of platform competition. In addition, it ignores the reality that there is a segment of the population that simply dislikes Apple’s products.

<sup>511</sup> Miller, Michael, “Samsung Unveils Galaxy S Line of Android Phones,” PC Magazine, June 30, 2010, <[http://www.pcmag.com/print\\_article2/0,1217,a=252368,00.asp?hidPrint=true](http://www.pcmag.com/print_article2/0,1217,a=252368,00.asp?hidPrint=true)>. [15.11]

<sup>512</sup> APLNDC00010809 at pp. 9, 48. [8.11]

<sup>513</sup> APLNDC00004618 – 4736 at ‘4626. [11.23]

217. In the smartphone and tablet markets, not only do customers seek a particular brand (e.g. Apple or Samsung) or model (e.g., iPad 2 or Galaxy Tab 7.0), but also a particular operating system or platform. In this case, there are two major platforms of relevance: Apple's iOS and Google's Android.

218. A consumer considering the purchase of a smartphone or tablet may prefer a device that runs a particular platform, a theory that has been propounded by Samsung [REDACTED] [REDACTED]. For this reason, in the "but for" environment that assumes Samsung had not sold its allegedly infringing products, it is likely that a significant portion of those sales would have been made by manufacturers that also use Google's Android platform. A smaller fraction would have been made by Apple, which runs its proprietary iOS platform.

219. This view, which postulates that a smartphone or tablet's operating system holds significant influence over an individual buyer's purchase decision, is also supported by many observers of the technology industry. For example, a March, 2011 Computerworld article proposed the following: "[i]f you're in the market for a new smartphone, choosing which one to buy has as much to do with the operating system that runs the phone as with the hardware itself."<sup>515</sup>

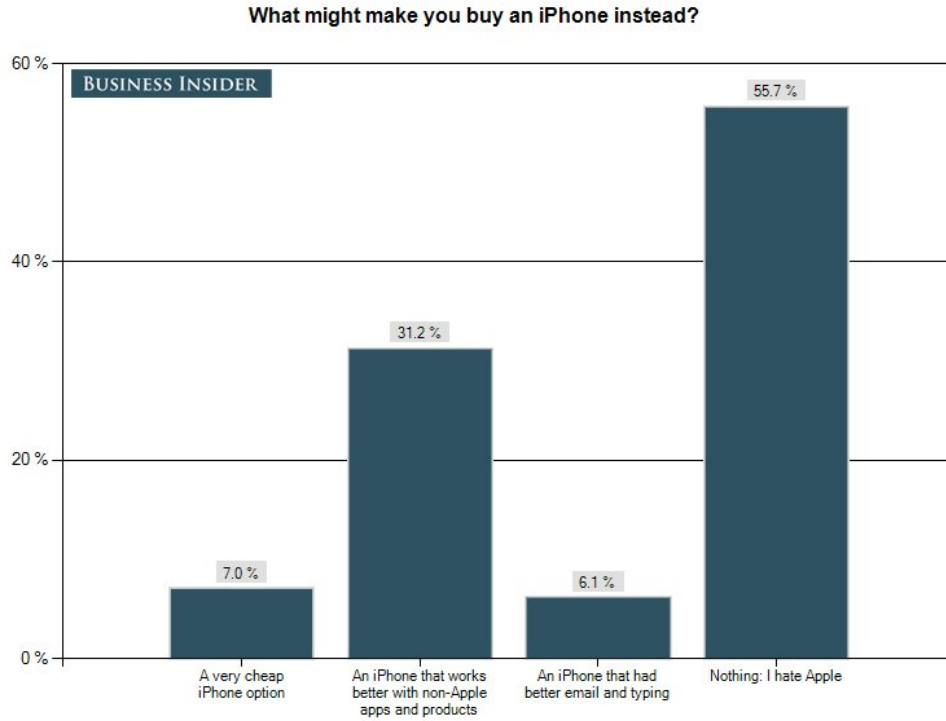
220. Another article, published in April, 2011 by Business Insider, illustrated graphically certain consumer's preference for the Android operating system. Specifically, Business Insider described a smartphone survey that indicated over 56% of respondents who already owned an Android would simply not buy an iPhone instead.<sup>516</sup>

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<sup>514</sup> Declaration of Michael J. Wagner in Support of Samsung's Opposition to Apple's Motion for a Preliminary Injunction, August 21, 2011, pp. 30-35. [5.33] [REDACTED]

<sup>515</sup> "Smartphone OS shootout: Android vs. iOS vs. Windows Phone," Computerworld, March 17, 2011, <[http://www.computerworld.com/s/article/9214206/Smartphone\\_OS\\_shootout\\_Android\\_vs\\_iOS\\_vs\\_Windows\\_Phone\\_?taxonomyId=mobile+and+wireless&taxonomyId=15](http://www.computerworld.com/s/article/9214206/Smartphone_OS_shootout_Android_vs_iOS_vs_Windows_Phone_?taxonomyId=mobile+and+wireless&taxonomyId=15)>. [5.34]

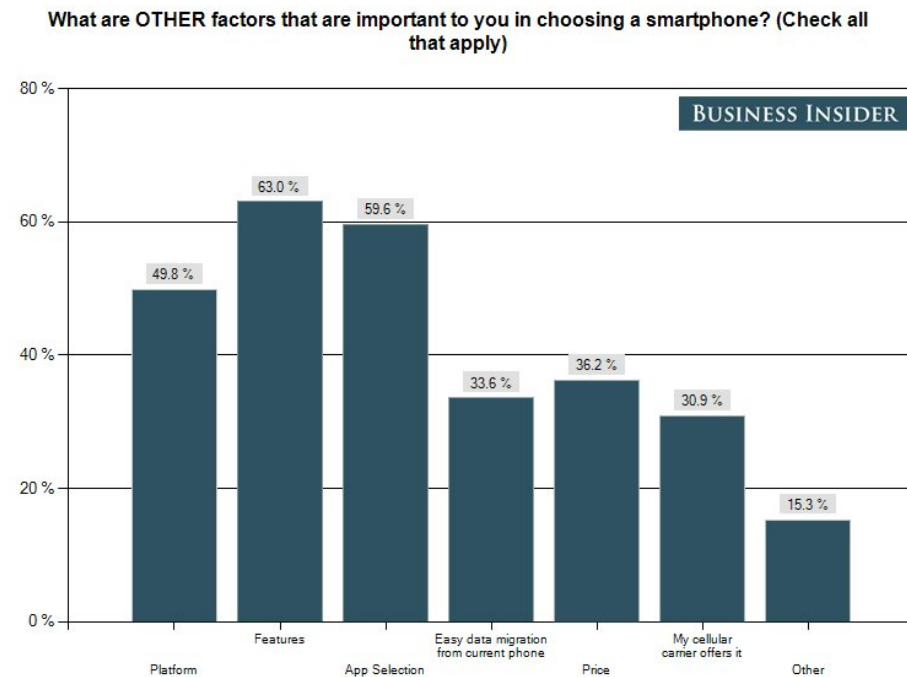
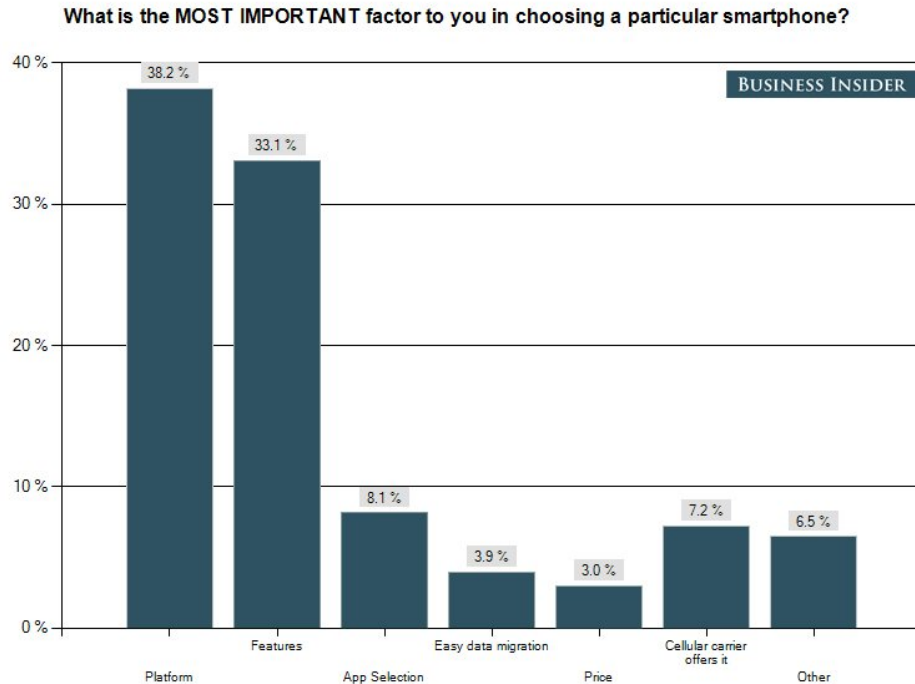
<sup>516</sup> "The Truth About Smartphones: Our Exclusive Survey on iPhone vs. Android," Business Insider, April 18, 2011, <<http://www.businessinsider.com/smartphone-survey-results-2011-4?op=1>>. [5.35]



221. The same survey indicated that over 38% of smartphone buyers considered platform the most important factor when choosing a particular smartphone.<sup>517</sup> Respondents also chose platform as another important factor in choosing a smartphone close to 50% of the time.<sup>518</sup>

<sup>517</sup> “The Truth About Smartphones: Our Exclusive Survey on iPhone vs Android,” Business Insider, April 18, 2011, <<http://www.businessinsider.com/smartphone-survey-results-2011-4?op=1>>. [5.35]

<sup>518</sup> “The Truth About Smartphones: Our Exclusive Survey on iPhone vs Android,” Business Insider, April 18, 2011, <<http://www.businessinsider.com/smartphone-survey-results-2011-4?op=1>>. [5.35]



222. This Business Insider study is an interesting study because it looks at a population (Android purchasers) that would be similar to the customers of the accused products. The question specifically to Android users to which 56% said they would not switch to an iPhone

is a minimum adjustment that Musika could have made. I.e., he could have excluded 56%, and then applied his market share approach to the remaining 44%. A more reliable approach would have excluded any consumer that indicated that platform was an important consideration, i.e. the 38% that said it is the most important factor and the 50% that said it is a factor in purchasing (i.e., 88% total). This last question is for all smartphone purchasers, so it would be preferable to do a survey specifically geared towards Android (or accused product) purchasers, but Apple could have easily done that given they conducted such a study.

**e) Mr. Musika's incremental profitability is overstated, resulting in significantly overstated lost profits.**

223. Mr. Musika calculates his incremental profitability using worldwide selling prices. However, Apple sells its iPhone for a considerably higher price outside the United States, so Mr. Musika's calculation results in a significantly overstated profit for U.S. sales. For example, Q3 and Q4 of its fiscal year 2010, using the U.S. selling prices would have reduced Mr. Musika's lost profits calculations by approximately 16 – 19 percent for smartphones.<sup>519</sup>

224. In addition to using worldwide profit calculations, Mr. Musika fails to deduct marketing and advertising expenses in his incremental profitability analysis. [REDACTED]  
[REDACTED] his lost profits model includes a large number of sales to customers on carriers other than the carriers that sell the iPhone. If his analysis is correct, it is likely that a significant amount of additional marketing and advertising would be required to reach such customers.

225. Therefore, I make a second adjustment to incremental profit by deducting the marketing / advertising expense. When both U.S. prices are used and marketing / advertising expenses are deducted, Mr. Musika's lost profits would be reduced by 19 – 23 percent in Q3 and Q4 of fiscal 2010.<sup>520</sup>

**5. Mr. Musika's calculation of Samsung's profits related to the infringement is overstated.**

226. For Apple's design-related intellectual property, I understand that Apple may be entitled to Samsung's profits related to the infringement. Mr. Musika calculates Samsung's

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<sup>519</sup> Schedule 10.1. [1.2]

<sup>520</sup> Schedule 10.1. [1.2]

profits two ways – the first deducting no expenses and the second based on Samsung’s gross margin.

227. As I describe below, Samsung is entitled to deduct all of its operating expenses in its calculation of the profits related to the infringement of Apple’s design-related IP. Further, the majority of these profits are appropriately apportioned to the other elements of value that Samsung contributes to the sales of the accused products.

**6. Mr. Musika’s reasonable royalty analysis relies on unreasonable benchmarks and results in an overstated concluded reasonable royalty rate.**

228. As part of his report, Mr. Musika developed a reasonable royalty framework that he used to calculate the monetary damages to be paid Apple in compensation for a portion of Samsung’s alleged infringement. Specifically, Mr. Musika explained that in this case, reasonable royalty damages “apply where other forms of damages are not available or cannot be proved with reasonable certainty.”<sup>521</sup> In general, such “reasonable royalty damage amounts are expressed as a reasonable royalty rate times an accused base,”<sup>522</sup> for example unit sales or revenue derived from sales of the accused device. Mr. Musika’s accused base consists of “the number of accused units sold and not revenue as the basis on which to calculate a royalty for each asserted item of Apple Intellectual Property In Suit.”<sup>523</sup>

229. With respect to the reasonable royalty rate, Mr. Musika employs three commonly used methods of calculating benchmarks from which to derive a final royalty: the cost approach, the market approach, and the income approach. These approaches, and my criticisms thereof, are explained in more detail below. Once calculated, Mr. Musika uses these benchmarks to derive his final royalty rates.<sup>524</sup>

230. It is important to note, as explained in Section IV.A.2, that while Mr. Musika explains that he “considered the effect of the entire market value of the products and elected to structure my royalty damage on an individual per unit basis and not the total revenue of the accused products,”<sup>525</sup> each of his royalty benchmarks apportions some measure of Samsung’s accused product revenue as if it were earned as a result of the IP at issue exclusively. In other

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<sup>521</sup> Musika Report, p. 52. [2.2]

<sup>522</sup> Musika Report, p. 52. [2.2]

<sup>523</sup> Musika Report, p. 53. [2.2]

<sup>524</sup> Musika Report, Exhibits 46-47. [2.2]

<sup>525</sup> Musika Report, p. 53. [2.2]

words, while Mr. Musika’s royalty base is not total revenue, his royalty rates are based on his measures of the total market values of the accused products.

**a) Mr. Musika’s cost approach does not provide a reasonable value for the intellectual property at issue.**

231. In his Expert Report, Mr. Musika develops a cost-based reference point that serves as one basis for his concluded royalty rate.<sup>526</sup> Mr. Musika derives this reference point from what he calls “the opportunity cost represented by the amount of lost operating profits incurred by Samsung during the period of time Samsung would have been out of the market developing, designing, testing and implementing an acceptable non-infringing substitute.”<sup>527</sup> However, Mr. Musika makes several unreasonable assumptions and omissions in his calculation that materially affect his cost-based reference point. These points of contention, along with a general overview of Mr. Musika’s cost-based approach, are described below.

**(1) Mr. Musika’s Approach in General**

*(a) Smartphones*

232. Mr. Musika calculates his smartphone reference point using the time period from June, 2010 through December, 2011.<sup>528</sup> This period begins on the date on which Samsung first sold its accused smartphones in the U.S. and ends on the last date for which Samsung provided data.<sup>529</sup>

233. First, Mr. Musika derives an “Average Gross Profit per Month for Accused Products” during the time period described above.<sup>530</sup> He then multiplies that average by four months; the period that he concludes represents the “N[umber] of Months Out of Market.”<sup>531</sup> Mr. Musika “based the period of time Samsung would have been out of the market ... on the opinion of Apple’s technical experts as identified on Exhibit 20 and Samsung and Apple evidence regarding the amount of time required in the ordinary course to design, develop, test and implement new smartphone and tablet features.”<sup>532</sup> This multiplication results in what Mr.

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<sup>526</sup> Musika Report, pp. 54-56 and Exhibits 39-39.4. [2.2]

<sup>527</sup> Musika Report, p. 54. [2.2]

<sup>528</sup> Musika Report, Exhibit 39.4. [2.2]

<sup>529</sup> Samsung Financial Data, 2010-2011, SAMNDCA00372946-138 at ‘946, ‘949. [14.5]

<sup>530</sup> Musika Report, Exhibit 39.4. [2.2]

<sup>531</sup> Musika Report, Exhibit 39.4. [2.2]

<sup>532</sup> Musika Report, pp. 54-55. [2.2]

Musika calls “Samsung’s Total Loss Due to Redesign,” which he divides by the “Total Accused Units Sold” during the prescribed time period to ascertain “Samsung’s Cost Value per Unit Due To Redesign.”<sup>533</sup>

234. From that point, Mr. Musika allocates his Cost Value per Unit between the utility Patents-in-Suit and the design IP at issue. To do this, he simply assigns [REDACTED] of the Cost Value to the utility patents, which encompass one type of IP, and [REDACTED] to the design IP, which encompasses three types of IP (design patents, trade dress, and trademarks).<sup>534</sup>

235. Mr. Musika accounts for all design IP as one portfolio with one Cost Value reference point.<sup>535</sup> However, he further splits the Cost Value per Unit assigned to Apple’s utility Patents-in-Suit among all such patents.<sup>536</sup> This allocation gives Mr. Musika his final Cost Value per Unit reference points.

*(b) Tablets*

236. Mr. Musika uses the same method to calculate his tablet cost-based royalty reference points. However, in this case he uses the time period October, 2010 through December, 2011.<sup>537</sup> Again, this period begins on the date on which Samsung first sold its accused tablets in the U.S. and ends on the last date for which Samsung provided data.<sup>538</sup>

**(2) Mr. Musika Assumes That Samsung’s Accused Products Must be Taken Out of the Market During Redesign**

237. As stated above, Mr. Musika makes the implicit assumption that Samsung would have been “out of the market” while it redesigned its phones to avoid infringement of Apple’s patents.<sup>539</sup> In other words, Mr. Musika claims that Samsung would have lost all sales of its allegedly infringing products while designing around Apple’s patents. It is likely that the large majority of these customers would have purchased another Samsung smartphone that is not accused or waited until the redesigned smartphone was available given the customers have already demonstrated a preference for a Samsung smartphone.

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<sup>533</sup> Musika Report, Exhibit 39.4. [2.2]

<sup>534</sup> Musika Report, Exhibit 39.3. [2.2]

<sup>535</sup> Musika Report, Exhibit 39.1. [2.2]

<sup>536</sup> Musika Report, Exhibit 39.1. [2.2]

<sup>537</sup> Musika Report, Exhibit 39.4. [2.2]

<sup>538</sup> Samsung Financial Data, 2010-2011, SAMNDCA00372946-138 at ‘119, ‘949. [14.2]

<sup>539</sup> Musika Report, p. 54. [2.2]



**(3) Mr. Musika Adopts an Artificial Time Period to Calculate an Overstated Per Unit Cost to Design Around**

238. As described above, Mr. Musika limits his calculation to the timeframe beginning on the first U.S. sale date of the infringing products and ending on the last date for which Samsung provided data. However, these end points do not accurately reflect the damages period, which would extend from the date of the hypothetical negotiation (i.e. the date on which the accused products were first sold) through the end of trial. Furthermore, this timeframe does not correspond to the period that would have been covered by the hypothetical license to the patents and other IP at issue.

239. Assuming the first date of trial is July 30, 2012, and that the trial is scheduled to last thirteen court days, the damages period would extend through the 15<sup>th</sup> of August, 2012.<sup>540</sup> This extends the period employed by Mr. Musika's analysis by seven months and fifteen days in the case of both smartphones and tablets. While this difference in time period would not likely have a large impact on Mr. Musika's "Average Gross Profit per Month for Accused Products,"<sup>541</sup> it would have a large impact on "Total Accused Units Sold" which he divides into "Samsung's Total Loss Due to Redesign" to calculate "Samsung's Cost Value per Unit Due To Redesign."<sup>542</sup>

240. This point is illustrated below using Samsung's actual data. As the figure shows, calculating Cost Value per Unit using only the first four months of data provided renders much higher estimates than using the entire period as Mr. Musika does. For example, Samsung's smartphone average Gross Profit is lower, but still comparable when calculated for the first four months only. However, the number of accused units sold during that period is approximately six times smaller than that sold during the entire period. The result is a much smaller Cost Value per Unit for Samsung's smartphones. The same result would be observed if the period were to be extended by seven months and fifteen days; Mr. Musika's Cost Value per Unit would decrease substantially. Note that this change is not based on any change in the underlying value of the patents and other IP at issue, but rather on the length of the time period selected.

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<sup>540</sup> Minute Order and Case Management Order, August 25, 2011. [14.6]

<sup>541</sup> If the calculation of Average Gross Profit per Month is limited to the first four months of sales, there would be no impact at all. If not, any increase in monthly gross profit above the current average would be spread across a larger time period, thus mitigating the upward impact.

<sup>542</sup> Musika Report, Exhibit 39.4. [2.2]

**Figure 34: Example of the Impact of Time Period Length in the Calculation of Samsung’s Cost Value per Unit Due to Redesign<sup>543</sup>**

<b>Smartphones</b>		
	<b>4-Month Cost Value per Unit</b>	<b>Musika Cost Value per Unit</b>
U.S. Average Monthly Gross Profit	\$ 120,908,655	\$ 128,346,467
Months Out of Market	4	4
Loss Due to Redesign	\$ 483,634,619	\$ 513,385,868
Accused Units Sold	2,796,722	17,084,829
<b>Cost Value per Unit</b>	<b>\$ 173</b>	<b>\$ 30</b>
<b>Tablets</b>		
	<b>4-Month Cost Value per Unit</b>	<b>Musika Cost Value per Unit</b>
U.S. Average Monthly Gross Profit	\$ 16,578,936	\$ 10,620,510
Months Out of Market	4	4
Loss Due to Redesign	\$ 66,315,745	\$ 42,482,040
Accused Units Sold	295,471	1,145,643
<b>Cost Value per Unit</b>	<b>\$ 224</b>	<b>\$ 37</b>

241. As described in my analysis of *Georgia-Pacific* factor 7, the utility and design Patents-in-Suit expire no earlier than September 29, 2014 (the ‘002 Patent) and at latest January 22, 2030 (the ‘129 Patent). Since the hypothetical negotiation would yield a license that extends through the expiration date of the last to expire of the licensed patents, this would extend the royalty period by around eighteen years when compared to the period that Mr. Musika uses. This extension would serve to decrease the Cost Value per Unit even further.

**(4) Mr. Musika Does Not Include Operating Expenses in His Calculation of the Profit Samsung Would Have Lost While Redesigning Its Accused Products**

242. Instead of using Samsung’s Operating Profit, Mr. Musika begins his calculation with “Average Gross Profit per Month for Accused Products,” which deducts from revenue only

<sup>543</sup> Schedule {16.2}. [1.2]

Samsung's manufacturing entity's Cost of Goods Sold.<sup>544</sup> Since Mr. Musika fails to include Operating Expenses in his calculation of "Samsung's Cost Value per Unit Due To Redesign," he is essentially arguing that Samsung would have incurred Operating Expenses on the sale of its accused products even if it had not sold those products. This assumption is incorrect, because Samsung would not have engaged in the activities that generated those expenses had it not actually sold those products.

243. This oversight leads Mr. Musika to overstate Samsung's profit from the sale of accused products and thus overstate "Samsung's Cost Value per Unit Due To Redesign." As shown on Mr. Musika's Exhibit 37, his calculation of Samsung's accused smartphone Gross Profit is \$2,022M in 2010 and \$7,017M in 2011, resulting in Gross Margins of 42% and 40% respectively.<sup>545</sup> Comparatively, I have calculated the 2010 STA, SEA, and SEC Consolidated Operating Profit across the accused smartphones in 2010 as \$72.57 per unit<sup>546</sup> and in 2011 as \$52.90 per unit.<sup>547</sup> Using the consolidated average selling prices (ASP) of Samsung's accused smartphones (\$408.04<sup>548</sup> and \$319.93<sup>549</sup> respectively), the appropriate Operating Margins come to 17.8%<sup>550</sup> and 16.5%<sup>551</sup> in 2010 and 2011.

244. With respect to Samsung's accused tablets, Mr. Musika calculates Gross Margins of 37% and 25% for 2010 and 2011 respectively.<sup>552</sup> My calculations show Operating Margins of 23.9% in 2010<sup>553</sup> and -1.2% in 2011.<sup>554</sup>

245. Clearly, the use of Operating Margins in place of Gross Margins in Mr. Musika's cost approach would have yielded significantly lower Cost Value per Unit estimates. Interestingly, it appears that Mr. Musika meant to use Operating Profits in his calculation. He states in his report that he "limited [his] calculation of this cost [the cost to replace or remove the accused technology] to the opportunity cost represented by the amount of lost **operating profits** incurred by Samsung during the period of time Samsung would have been out of the

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<sup>544</sup> Musika Report, Exhibits 37 and 38. [2.2]

<sup>545</sup> Musika Report, Exhibit 37. [2.2]

<sup>546</sup> Schedule {4.3}. [1.2]

<sup>547</sup> Schedule {4.4}. [1.2]

<sup>548</sup> Schedule {4.3}. [1.2]

<sup>549</sup> Schedule {4.4}. [1.2]

<sup>550</sup> \$72.57/ \$408.04 = 17.8%

<sup>551</sup> \$52.90/ \$319.93 = 16.5%

<sup>552</sup> Musika Report, Exhibit 38. [2.2]

<sup>553</sup> See Schedule {4.3}. [1.2]; \$140.46/ \$588.88 = 23.9%

<sup>554</sup> See Schedule {4.4}. [1.2]; -\$4.67/ \$399.58 = -1.2%

market ...”<sup>555</sup> (emphasis added) While ultimately Mr. Musika uses Gross Profit, the use of Operating Profit would have been the more appropriate measure of profitability in this case.

**b) Mr. Musika’s income approach does not provide a reasonable value for the intellectual property at issue.**

246. In addition to the cost approach, Mr. Musika also employed an income approach to derive a reasonable royalty benchmark. He explained that “[t]he theory behind an income approach is that the value of the patent at issue is equal to the future profitability of the products embodying the patented technology.”<sup>556</sup> Importantly, Mr. Musika noted that Samsung’s “net operating income produced through the sale of a smartphone and tablet ...” “is not the result of the deployment of any single asset. Rather it represents a composite return on all assets.”<sup>557</sup>

**(1) Mr. Musika’s Approach in General.**

247. Mr. Musika began his “analysis by reviewing the work performed by the international company Interbrand,” which “identifies itself as the ‘world’s largest brand consultancy.’”<sup>558</sup> Mr. Musika explained that Interbrand releases an “annual valuation and ranking of the top 100 brands in the world,” the valuation method of which “is an income based approach” that “starts with a company’s overall financial performance and separates the portion of a company’s overall performance that relates to the intangible brand.”<sup>559</sup> “Interbrand’s actual calculation is: operating profits less taxes less an industry weighted average cost of capital (WACC) equals economic value added (EVA). Interbrand then applies its own proprietary factor to the total EVA to determine the role of and ultimately the value of a company’s brand.”<sup>560</sup>

248. Mr. Musika claims to follow Interbrand’s method by first calculating Apple’s companywide EVA. Next he “deduct[s] the amount of the premium earnings that Interbrand has calculated that are due to the value of Apple’s overall brand”<sup>561</sup> by (i) multiplying Apple’s companywide operating margin by the ratio of Interbrand’s brand valuation of Apple to Apple’s

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<sup>555</sup> Musika Report, p. 54. [2.2]

<sup>556</sup> Musika Report, p. 62. [2.2]

<sup>557</sup> Musika Report, p. 62. [2.2]

<sup>558</sup> Musika Report, p. 63. [2.2]

<sup>559</sup> Musika Report, p. 63. [2.2]

<sup>560</sup> Musika Report, pp. 63-64. [2.2]

<sup>561</sup> Musika Report, p. 64. [2.2]

market capitalization,<sup>562</sup> which he calls “Brand/Design Value,”<sup>563</sup> and (ii) subtracting that value from Apple’s companywide EVA.<sup>564</sup>

249. The resulting “EVA net of brand value” is renamed the “Value of the Company’s Other Intangibles” and then subtracted from Apple’s iPhone and iPad combined EVA net of brand value.<sup>565</sup> This value, according to Mr. Musika, is the “Value of iPhone and iPad Combined ... Intangibles.”<sup>566</sup>

250. Mr. Musika replicates this analysis with respect to Samsung’s accused products. He then calculates per unit rates for the utility Patents-in-Suit by multiplying his calculated “Value of Intangibles” by the companies’ respective combined smartphone and tablet ASPs.<sup>567</sup> His per unit rates for the design IP at issue use the same ASPs, but replace “Value of Intangibles” with “Brand/Design Value.”<sup>568</sup>

251. Finally, Mr. Musika allocates these per unit value among the various items of IP at issue to derive per unit reference points for each item of IP.<sup>569</sup> He claims he did so “based on the relative strength of each utility patent ...”<sup>570</sup>

252. While Mr. Musika’s analysis is claimed to be based on a reliable methodology, Mr. Musika’s application of the methodology leads to an unreliable and overstated result. I have described my main concerns with this analysis in the paragraphs that follow.

**(2) Interbrand’s Brand Valuation Does Not Measure the Value of Any of the IP at Issue.**

253. The main assumption upon which Mr. Musika’s income approach relies is that Interbrand’s calculation of brand value somehow relates to the design IP at issue in this matter. However, it doesn’t appear that Interbrand’s calculation is meant to value design at all. Rather, “[t]here are three key aspects that contribute to the [Interbrand Value] assessment: the financial

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<sup>562</sup> Musika Report, Exhibit 41.5. [2.2]

<sup>563</sup> Musika Report, Exhibit 41.3. [2.2]

<sup>564</sup> Musika Report, Exhibit 41.3. [2.2]

<sup>565</sup> Musika Report, Exhibit 41.3. [2.2]

<sup>566</sup> Musika Report, Exhibit 41.3. [2.2]

<sup>567</sup> Musika Report, Exhibit 41.2. [2.2]

<sup>568</sup> Musika Report, Exhibit 41.2. [2.2]

<sup>569</sup> Musika Report, Exhibit 41. [2.2]

<sup>570</sup> Musika Report, p. 66. [2.2]

performance of the branded products or services, the role of brand in the purchase decision process, and the strength of the brand.”<sup>571</sup>

254. From Interbrand’s perspective, “role of brand reflects the portion of demand for a branded product or service that exceeds what the demand would be for the same product or service if it were unbranded.”<sup>572</sup> This statement indicates that the Interbrand calculation may actually be exclusive of design. At the very least, Interbrand’s measure of brand value includes much more than just design IP. As Jez Frampton, Interbrand’s Global Chief Executive, said in Interbrand’s Best Global Brands 2011 report, “customers interpret [a] brand as a result of every interaction; from culture to product, from environment to communications.”<sup>573</sup> Since Mr. Musika assumes that Interbrand’s valuation is, in fact, the value of Apple’s design IP, he has vastly overestimated its value. Indeed, it is not clear that Interbrand’s study that is used as the basis for Mr. Musika’s design-related IP valuation has *any* connection to design, and certainly not the limited design-related IP at issue in this lawsuit.

255. Further, the trade names Apple / iPhone / iPad are important sales drivers, indicating that if the Interbrand value does include some element of design, it would be a very small portion. A Competitive Tablet Product Experience report by Samsung points out that brand is one of “the most important factors taken into consideration when purchasing a tablet,” and that “Apple brand is most desirable compared to all other brands.”<sup>574</sup> In a March 2011 Samsung Customer Survey, Apple received the highest purchase reason for brand.<sup>575</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>571</sup> Best Global Brands 2011, Methodology, Interbrand. [5.39]

<sup>572</sup> Best Global Brands 2011, Methodology, Interbrand. [5.39]

<sup>573</sup> Best Global Brands 2011, Interbrand, p. 3. [4.19]

<sup>574</sup> Competitive Tablets Product Experience - Form Factor & Display Size / Aspect Ratio Validation Research Report, August 28, 2011, SAMNDCA00028006-166 at '008. [4.8]

<sup>575</sup> Customer Survey Result, March 11, 2011, SAMNDCA00235804-830 at '809. [4.9]

<sup>576</sup> [REDACTED]

PLNDCA0002641020-069 at '028 and '041. [4.15]

████████████████████ In a July 2011 STA Post Launch Consumer Insights study, Samsung found that being “Not Apple Branded” was the major sales deterrent to the Galaxy Tab 10.1.<sup>578</sup>

**(3) Mr. Musika's Calculation of Brand/Design Value and Value of Intangibles are Misguided.**

256. As explained above, Mr. Musika estimated Apple's companywide “Brand/Design Value” “by multiplying [Apple's] operating profit by the ratio of its brand value to market capitalization ...”<sup>579</sup> Notwithstanding the fact that Interbrand's brand value figures represent much more than overall design, and specifically Apple's design IP at issue, this calculation implies that operating margin and market capitalization are comparable measures. From a different perspective, this calculation assumes that “Brand/Design Value” and operating margin share the same relationship, if such a relationship exists, as Apple's brand value and market capitalization.

257. This, however, is not the case. Operating margin is a measure of the profitability of a company's operating activities over a specified time period. Market capitalization, on the other hand, is calculated by multiplying a company's total number of outstanding shares by the value of an individual share. Thus, market capitalization is the market's valuation of a company, including the value of current and future operations, as well as all real and intangible assets owned by that company.

258. Since Mr. Musika employed an inappropriate calculation of “Brand/Design Value,” it follows that his calculation of the value of other intangibles is incorrect as well because it was calculated as EVA minus “Brand/Design Value.”<sup>580</sup> However, what is even more problematic is that Mr. Musika renamed what he initially called “Value of Intangibles,” using it to calculate what he concluded was a “Per unit rate for utility patents.”<sup>581</sup> This conversion was both unexplained and not supported by the facts. As has been acknowledged by Mr. Musika,<sup>582</sup> and discussed in this report, the value of both smartphones and tablets are derived from a vast

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<sup>577</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012 p. 399. [9.3] See also Deposition of Gregory Joswiak, Volume I, February 23, 2012, p. 60. [9.2]

<sup>578</sup> Samsung Presentation: STA Post Launch Consumer Insights. July 2011, SAMNDCA00027781-844 at '779. [4.16]

<sup>579</sup> Musika Report, Exhibit 41.3, [2.2]

<sup>580</sup> Musika Report, Exhibit 41.3, [2.2]

<sup>581</sup> Musika Report, Exhibit 41.2, [2.2]

<sup>582</sup> Musika Report, p. 52, [2.2]

array of feature sets not limited to the IP at issue. Mr. Musika, ignoring his own assertions, is implicitly claiming that his “Value of Intangibles” is the exclusive result of the specific IP at issue.

**(4) Mr. Musika’s Use of WACC is Inappropriate, and Has No Effect on His Calculation.**

259. Mr. Musika’s calculation of industry WACC, which he uses to determine EVA in his income approach, is not an appropriate measure. While Interbrand does use in its EVA calculation a “capital charge rate ... set by the industry weighted average cost of capital (WACC),” the brand management firm does not disclose just how it calculates such a WACC. Given this uncertainty, Mr. Musika simply chose eleven U.S. companies that appeared in Interbrand’s 2010 or 2011 top 100 brands report.<sup>583</sup> Further, these companies were limited to Interbrand’s computer software, electronics, or internet services industry categories.<sup>584</sup>

260. A closer examination of these companies, however, shows that they are actually very different financially and probably do not provide a useful industry WACC benchmark. For example, I have gathered information on each company’s operating margin for the years 2010 and 2011, where available, and compared it to the corresponding companywide WACC. While the company WACCs provided by Mr. Musika are relatively similar to each other, their 2010 operating margins run the gambit from 4.1% for Amazon.com to 38.6% for Microsoft.<sup>585</sup> The same is true of 2011; operating margin ranges from 1.8% for Dell to 38.8% for Microsoft.<sup>586</sup>

261. As part of his income approach, Mr. Musika also used the same “Industry Weighted Average Cost of Capital” to calculate Apple’s companywide EVA, Apple’s iPhone and iPad combined EVA, and Samsung’s accused product EVA.<sup>587</sup> However, since WACC is the same for both Apple companywide and iPhone and iPad combined, changes in WACC have no effect on the final result. In other words, a change in WACC has the same net effect on Apple’s companywide EVA net of brand value as it does on Apple’s iPhone and iPad combined EVA net of brand value. Since the former is ultimately subtracted from the latter in Mr. Musika’s analysis, the net effect of a change in WACC is no effect on his calculation. That is, no matter whether the WACC was 0% or 1000%, Mr. Musika would have derived the same values.

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<sup>583</sup> Musika Report, Exhibit 41.4, [2.2]

<sup>584</sup> Musika Report, Exhibit 41.4, [2.2]

<sup>585</sup> Schedule {16.1}. [1.2]

<sup>586</sup> Schedule {16.1}. [1.2]

<sup>587</sup> Musika Report, Exhibit 41.3, [2.2]



**(5) Mr. Musika is simply splitting the “economic value” of the iPad and iPhone to the specific IP asserted in this lawsuit.**

262. In its basic form, Mr. Musika’s analysis simply calculates the profitability of the iPhone and the iPad, subtracts the profitability of all Apple products, and splits that profitability between the utility patents and the design-related IP. It is simply not justified and not appropriate to conclude that 100% of this value is related to the limited asserted IP in this case.

**(6) Mr. Musika’s analysis results in an overstated conclusion for the excess profitability of iPad / iPhone versus the company as a whole.**

263. Mr. Musika’s analysis’s use of worldwide profitability for the iPhone and iPad and comparing it to worldwide profitability for all Apple products (which include computers). First, computers are in a notoriously competitive industry, and therefore profitability of Apple as a whole would be expected to be lower regardless of whether the asserted IP was worthless or valuable. This suggests that the comparison that Mr. Musika’s analysis relies upon is meaningless.

264. Second, as explained elsewhere, the use of worldwide prices for the U.S. and worldwide significantly overstates the profitability of the iPad and iPhone products because Apple’s U.S. ASP for these products are considerably lower than its worldwide price. Although I am not aware of Apple producing data on this, in my experience computer prices are higher in the U.S. versus worldwide, so using the worldwide data would tend to understate Apple’s computer profitability.

265. Finally, the unreliable nature of Mr. Musika’s calculation is demonstrated by the fact that if Mr. Musika has performed his calculation separately for iPad and for iPhone, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] 588

**(7) Mr. Musika uses an understated tax rate for Samsung, and if he had used the correct rate he would have found a negative royalty rate.**

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<sup>588</sup> Mr. Musika reports an operating income [REDACTED] for iPad in Exhibit 33, compared to the company wide operating income of 30.1%. (Musika Report, Exhibit 33, 41.3. [2.2])

Mr. Musika attempts to perform a similar analysis for Samsung, but he uses a 0.5% tax rate that he claims is the amount that is paid by STA to the U.S. government. However, for Apple, Mr. Musika is using the consolidated company’s effective tax rate reported in Apple’s financial statements. Similar to Apple, Samsung pays taxes in many countries around the world, the primary country being Korea where it is headquartered. If Mr. Musika had applied a similar methodology as for Apple, he would have used a 20% effective tax rate for 2011.<sup>589</sup> If this rate had been used, Mr. Musika’s analysis would have calculated a negative value for intangibles for Samsung, which based on Mr. Musika’s logic would demonstrate that Samsung derives no value (or negative value) from its use of the asserted utility patents.

**(8) Mr. Musika calculates the maximum royalty rate that Samsung would be willing to pay, but then ignores the rate.**

266. Mr. Musika calculates royalty rate values for Apple, but then appears to completely ignore those values in his royalty rate conclusion. Given that he is collecting lost profits in his scenarios where he has presented a reasonable royalty, it is unclear why the value he calculates for Apple has any significance to the conclusion.

**c) The other benchmarks mentioned by Mr. Musika are not relevant to the reasonable royalty analysis.**

267. As Mr. Musika explained, “[t]he market approach to the valuation of intellectual property is based on the consideration of other market comparable transactions.”<sup>590</sup> In this analysis, Mr. Musika explained that he “reviewed and analyzed both Apple and Samsung’s licensing activity and searched the public domain for market comparable rates specific to or comparable to the Apple Intellectual Property In Suit.”<sup>591</sup> While Mr. Musika concluded [REDACTED]  
[REDACTED]  
[REDACTED] he inappropriately turns to Apple’s Made for iPhone, iPad, and iPod program as a reference point.<sup>593</sup>

268. This program, which “made it possible for third parties to manufacture an accessory and with Apple’s permission place a ‘Made for iPod’ logo on the packaging in

<sup>589</sup> Consolidated Financial Statements of Samsung Electronics Co., Ltd. and Subsidiaries as of December 31, 2011, p. 67. [3.5]

<sup>590</sup> Musika Report, p. 56. [2.2]

<sup>591</sup> Musika Report, p. 56. [2.2]

<sup>592</sup> Musika Report, p. 58. [2.2]

<sup>593</sup> Musika Report, p. 60. [2.2]

exchange for a fee ...” [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

269. [REDACTED] this license is not comparable. Most importantly, this license has nothing to do with Apple’s design IP at issue. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>6</sup> In short, it is an indefensible assertion that this agreement provides any useful information to the analysis of a reasonable royalty rate in this matter, let alone a per unit royalty floor for any single item of design IP. Mr. Musika offers no explanation of his assertion and I do not find this license at all relevant to this matter.

**d) Mr. Musika’s analysis does not take into account several data points that would result in a much lower reasonable royalty rate.**

270. Mr. Musika’s discussion of the market derivation of a reasonable royalty benchmark excludes certain considerations that would place downward pressure on his suggested royalty rate. While he postulates that there is “No Market Rate” for any of the IP at issue,<sup>597</sup> there still exist important circumstances, embodied in both licensing discussions and agreements that can serve as tests for the reasonableness of Mr. Musika’s conclusions.

271. Mr. Musika begins his market benchmark analysis [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>594</sup> Musika Report, pp. 60-61. [2.2]

<sup>595</sup> Musika Report, p. 60. [2.2]

<sup>596</sup> Deposition of Mark Buckley, February 23, 2012, p. 58. [5.2]

<sup>597</sup> Musika Report, Exhibits 46 and 47. [2.2]

<sup>598</sup> Musika Report, p. 56. [2.2]

<sup>599</sup> Musika Report, p. 56. [2.2]

<sup>600</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, p. 8. [14.7]

<sup>601</sup> Musika Report, p. 56. [2.2]

[illegible]

273. [REDACTED]

274. In addition to the parties' relationship, Mr. Musika also ignored a few important aspects of their 2010 meetings that could have informed his reasonable royalty analysis. [REDACTED]

<sup>607</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, p. 117. [14.7]

[REDACTED]

275. At an October meeting, [REDACTED]

[REDACTED]

276. [REDACTED]

[REDACTED]

277. [REDACTED]

[REDACTED]

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<sup>608</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, p. 181. [14.7]

<sup>609</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, p. 181. [14.7]

<sup>610</sup> [REDACTED]  
APLNDC00010886-903 at '893. [14.8]

<sup>611</sup> [REDACTED]  
APLNDC00010886-903 at '893. [14.8]

<sup>612</sup> [REDACTED]  
APLNDC00010886-903 at '893. [14.8]

<sup>613</sup> [REDACTED]  
APLNDC00010886-903 at '897. [14.8]

<sup>614</sup> [REDACTED]  
APLNDC00010886-903 at '893. [14.8]

278. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] It follows from the above that Apple’s [REDACTED] royalty proposals greatly overstate the reasonable royalty for at least the Utility Patents-In-Suit because these rates include rights to at least two categories of irrelevant IP to the hypothetical license in this case, while the remaining category includes the IP at issue in addition to technology outside of the scope of this matter. This is clear from Apple’s second lawsuit they have filed against Samsung, in this same court, that is seeking damages and an injunction of patents that are not at issue in this lawsuit.

279. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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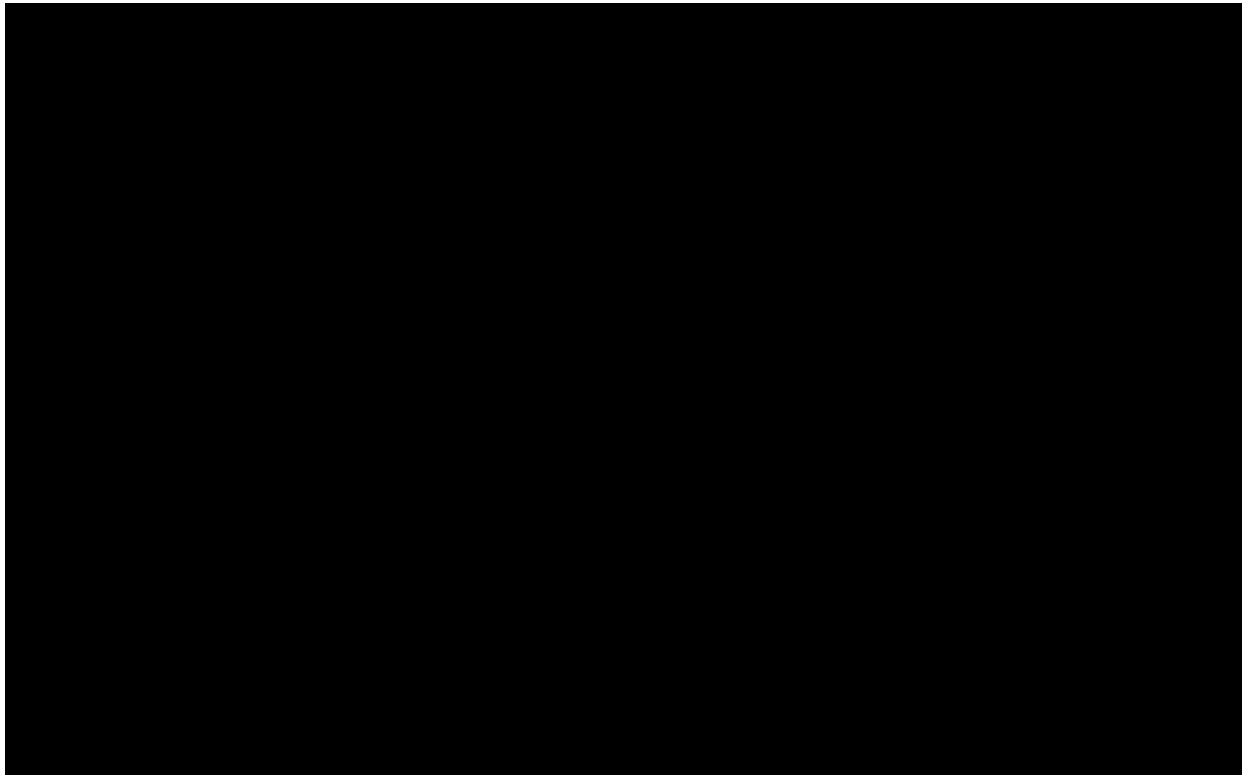
615 [REDACTED]

616 APLNDC00010886-903 at \*893. [14.8]

617 APLNDC00010886-903 at \*900. [14.8]

617 APLNDC00010886-903 at \*900. [14.8]

Figure 35: [REDACTED]



280. [REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

281. This information provides a clear maximum to Apple’s valuation of its design IP in this specific licensing context. [REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED]

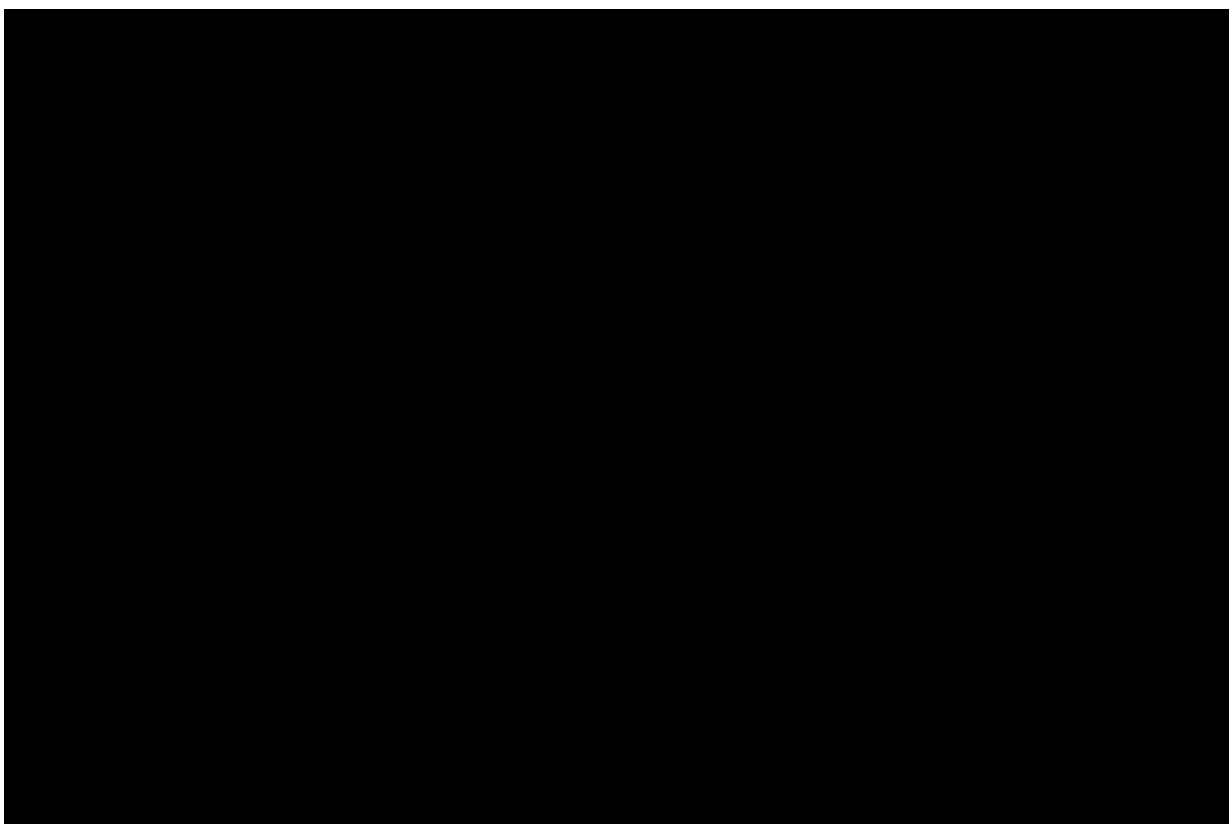
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<sup>618</sup> [REDACTED]  
APLND00010886-903 at ‘898. [14.8]  
<sup>619</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, pp. 186-190. [14.7]  
<sup>620</sup> [REDACTED]  
APLND00010886-903 at ‘901. [14.8]

[REDACTED]  
[REDACTED] This fact is ignored in Mr. Musika’s analysis.

282. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]<sup>1</sup>

**Figure 36:** [REDACTED]



283. [REDACTED]  
[REDACTED]  
[REDACTED]

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621 [REDACTED]  
APLNDC00010886-903 at ‘902. [14.8]



[REDACTED]

284.

[REDACTED]

[REDACTED] Again, these valuations include a much larger portfolio of technology than what is at issue in this case, indicating that the actual value of the IP at issue is substantially less than these maximum values.<sup>624</sup>

285.

[REDACTED]

286. While, as explained above, Apple’s proposed license to Samsung does imply a maximum royalty, if it is determined that certain Apple IP was not available for license, then a reasonable royalty in relation to that IP is not an appropriate remedy. Mr. Musika, instead of explaining the concept of calculating a reasonable royalty in a situation in which a royalty never would have materialized, [REDACTED]

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<sup>622</sup> [REDACTED]  
APLND00010886-903 at ‘893. [14.8]

<sup>623</sup> [REDACTED]  
APLND00010886-903 at ‘898. [14.8]

<sup>624</sup> Also note that Apple’s smartphones are not accused of infringing the ‘607 and ‘129 Patents-in-Suit that describe touchscreen hardware. This also indicates a lower smartphone royalty rate.

<sup>625</sup> [REDACTED]  
APLND00010886-903 at ‘903. [14.8]

288. Finally, supplementing the analysis provided above, Samsung entered into a Confidential Patent License Agreement with Microsoft, effective July 1, 2011, that provided each party a worldwide, nonexclusive license to the other party's entire portfolio of patents filed on before the end of the license term, which would extend for seven years.<sup>629</sup> Pursuant to this license, each party was granted the right to make, use, and sell certain licensed products.<sup>630</sup> With respect to Samsung, the licensed products included both Android smartphones and tablets.<sup>631</sup>

121

<b>Android Smartphones</b>	
<b><i>Transfer Price</i></b>	<b><i>Per Unit Royalty</i></b>
Greater than US\$300	US\$5.00
Greater than US\$200 to US\$300	US\$4.00
Greater than US\$100 to US\$200	US\$3.00
US\$100 and below	US\$2.25

<b>Android Tablets</b>	
<b><i>Transfer Price</i></b>	<b><i>Per Unit Royalty</i></b>
Greater than US\$ 400	US\$10.00
Greater than US\$300 to US\$400	US\$6.50
Greater than US\$200 to US\$300	US\$5.00
US\$200 and below	US\$4.00

290. However, beginning with the second year of the term and during each year thereafter, Samsung was allowed to credit specified dollar amounts against its royalties for that year.<sup>634</sup> The amounts of such credits are shown below:<sup>635</sup>

<b>Fiscal Year</b>	<b>Microsoft License Fee Credit</b>
<b>2</b>	US\$100,000,000.00
<b>3</b>	US\$125,000,000.00
<b>4</b>	US\$150,000,000.00
<b>5</b>	US\$175,000,000.00
<b>6</b>	US\$175,000,000.00
<b>7</b>	US\$200,000,000.00
<b>Total</b>	US\$925,000,000.00

<sup>634</sup> Confidential Patent License Agreement between Microsoft Corporation and Microsoft Licensing GP and Samsung Electronics Co., Ltd., July 1, 2011, S-794-ITC-005517484-506 at ‘494. [15.12]

<sup>635</sup> Confidential Patent License Agreement between Microsoft Corporation and Microsoft Licensing GP and Samsung Electronics Co., Ltd., July 1, 2011, S-794-ITC-005517484-506 at ‘506. [15.12]

291. This license may provide a useful benchmark with which to evaluate the hypothetical license because it is essentially a license to manufacture and sell smartphones and tablets running the Android operating system.

**e) Mr. Musika takes into account inappropriate considerations in his *Georgia-Pacific* analysis that result in an artificially high royalty rate.**

292. Mr. Musika consistently refers to Apple's "unwillingness" to negotiate a license at essentially any price as a basis to argue for a high royalty rate.<sup>636</sup> Mr. Musika appears to use this argument to establish a very high royalty rate, even on intellectual property that has little impact on the sale of either party, as admitted by Mr. Musika. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

293. For example, Mr. Musika admits that Apple would not lose any profits based on Samsung's infringement of the trademark icons, yet he still concludes that the "reasonable" royalty rate for Samsung's infringement of any trademark icon would be [REDACTED] per unit, stating that "[d]ue to the extreme importance of Apple's design to its corporate success and future, I have assigned the high end of the range for the licensing of all design related assets as a whole. Further, Apple has consistently and emphatically rejected any consideration of allowing a competitor to utilize Apple's proprietary design elements. Therefore, although Apple has refused to license any of its design related assets and would consider the license of one as injurious as licensing the group, the "Made for iPod" program rate of \$4.00 per unit is considered a floor royalty for the license of any individual item within this group."<sup>638</sup>

294. Mr. Musika is essentially arguing that Apple would never license the design-related intellectual property, therefore the rate for any element of design-related IP should be artificially high. This is inappropriate for two reasons. First, if Apple would never have licensed the IP, then a reasonable royalty is not an appropriate remedy in this case. Indeed, in a recent N.D. of California decision, Judge Phyllis Hamilton granted a motion for judgment as a matter of

<sup>636</sup> Musika Report, pp. 28, 56, 65, 71, 73, Exhibits 42, 43, 45, 46. [2.2]

<sup>637</sup> Musika Report, p. 56. [2.2]

<sup>638</sup> Musika Report, Exhibit 45, 46. [2.2]

law in a copyright matter that the plaintiff is not entitled to actual damages in the form of a hypothetical license.<sup>639</sup>

295. Even if Apple is entitled to seek a reasonable royalty for the alleged infringement, Mr. Musika is claiming to do so under a *Georgia-Pacific* analysis. However, the 15<sup>th</sup> factor describes the licensing circumstances clearly, requiring that both parties would be “reasonably and voluntarily trying to reach an agreement” and the licensor “was willing to grant a license.”<sup>640</sup> Clearly, Mr. Musika is not following these required assumptions of the *Georgia-Pacific* analysis in his conclusions.

**f) Mr. Musika’s concluded royalty rate is unreasonably high.**

296. As described above, Mr. Musika relies on benchmarks that provide overstated values and are not reliable indicators of the value of the specific intellectual property at issue in this lawsuit. In addition, Mr. Musika does not consider several benchmarks that would have resulted in significantly lower reasonable royalty rates. Therefore, Mr. Musika’s concludes a royalty rate that is unreasonably high and would not be agreed to by Samsung, or any other willing licensor.

**7. Mr. Musika’s discussion of the irreparable harm done to Apple is divorced from actual market conditions.**

297. Mr. Musika asserts that “the damages amounts expressed [in his report] do not represent a complete measure of the total damages that Apple has and will continue to experience due to Samsung’s conduct.”<sup>641</sup> However, Mr. Musika offers little to no evidence, beyond cursory conjecture, that such irreparable harm has occurred, is occurring, or will occur in the future. The data, shown in the five figures below, show that Apple is far from suffering irreparable harm.

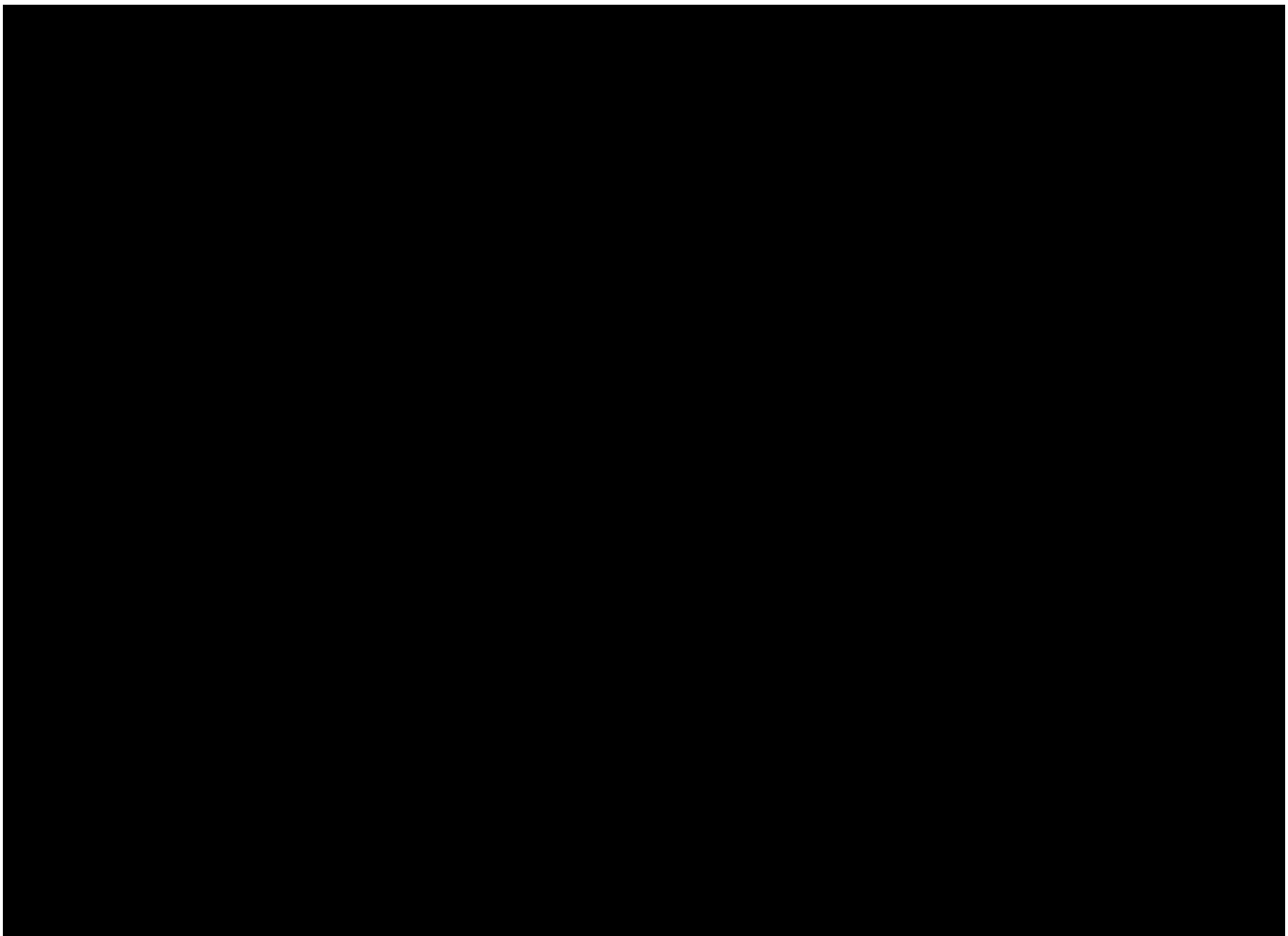
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<sup>639</sup> *Oracle USA, Inc., et al. v. SAP AG, et al.*, Order Granting Defendants’ Motion for JMOL , and Motion for New Trial; Order Denying Plaintiffs’ Motion for New Trial; Order Partially Vacating Judgment, September 1, 2011, p. 10. [15.13]

<sup>640</sup> Musika Report, p. 87. [2.2]

<sup>641</sup> Musika Report, p. 27. [2.2]

Figure 37: [REDACTED]



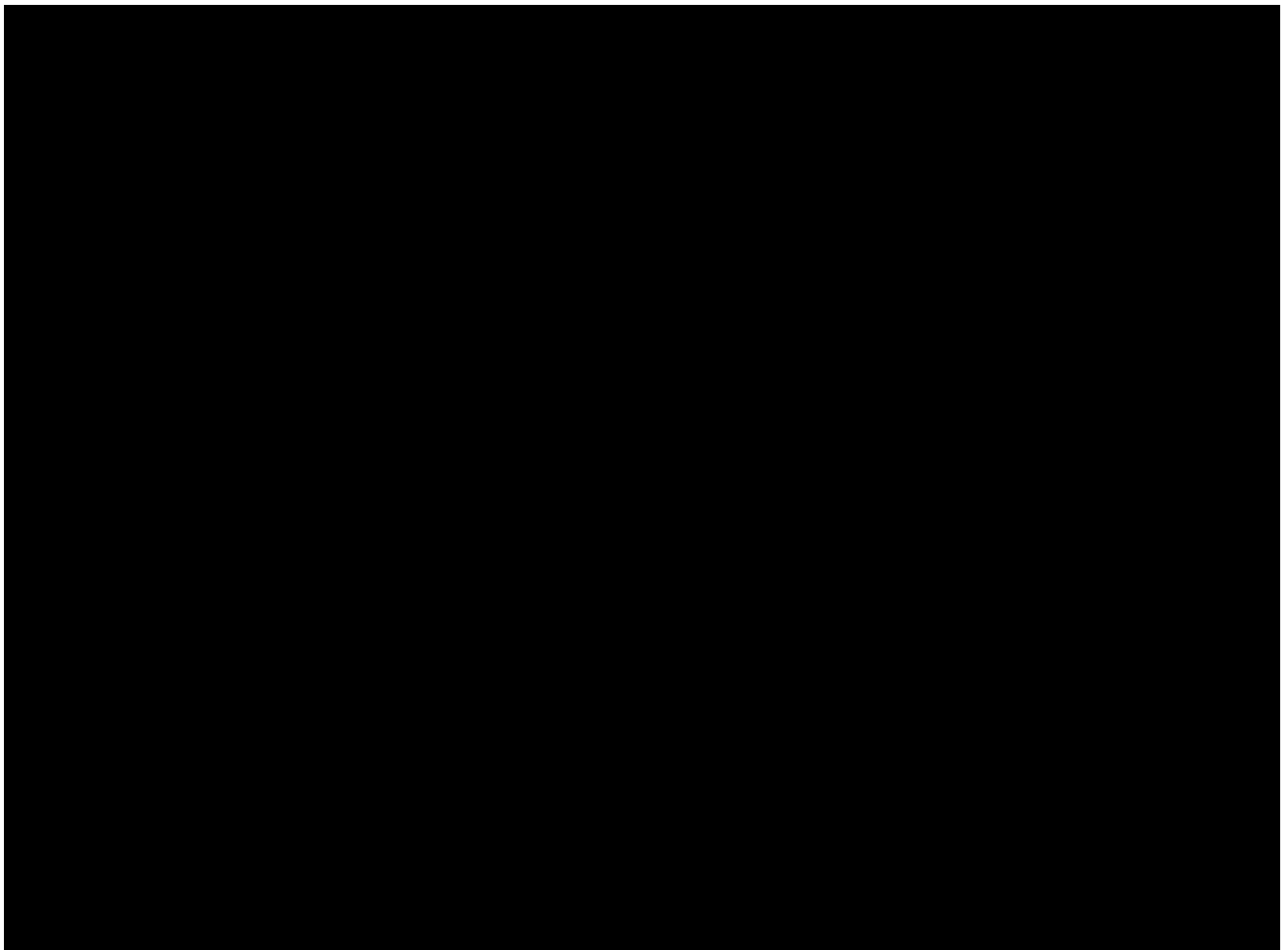
298. The chart above shows Apple’s U.S. iPhone sales by quarter from the release of the first iPhone through Q4 2011. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

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<sup>642</sup> Schedule 18. [1.2]

Figure 38: [REDACTED]



299. The above chart shows Apple’s iPhone ASP alongside Samsung’s smartphone ASP from Q2 2007 through Q4 2011. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

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<sup>643</sup> Schedule 18. [1.2]

Figure 39: [REDACTED]



300. [REDACTED]

[REDACTED]

[REDACTED]

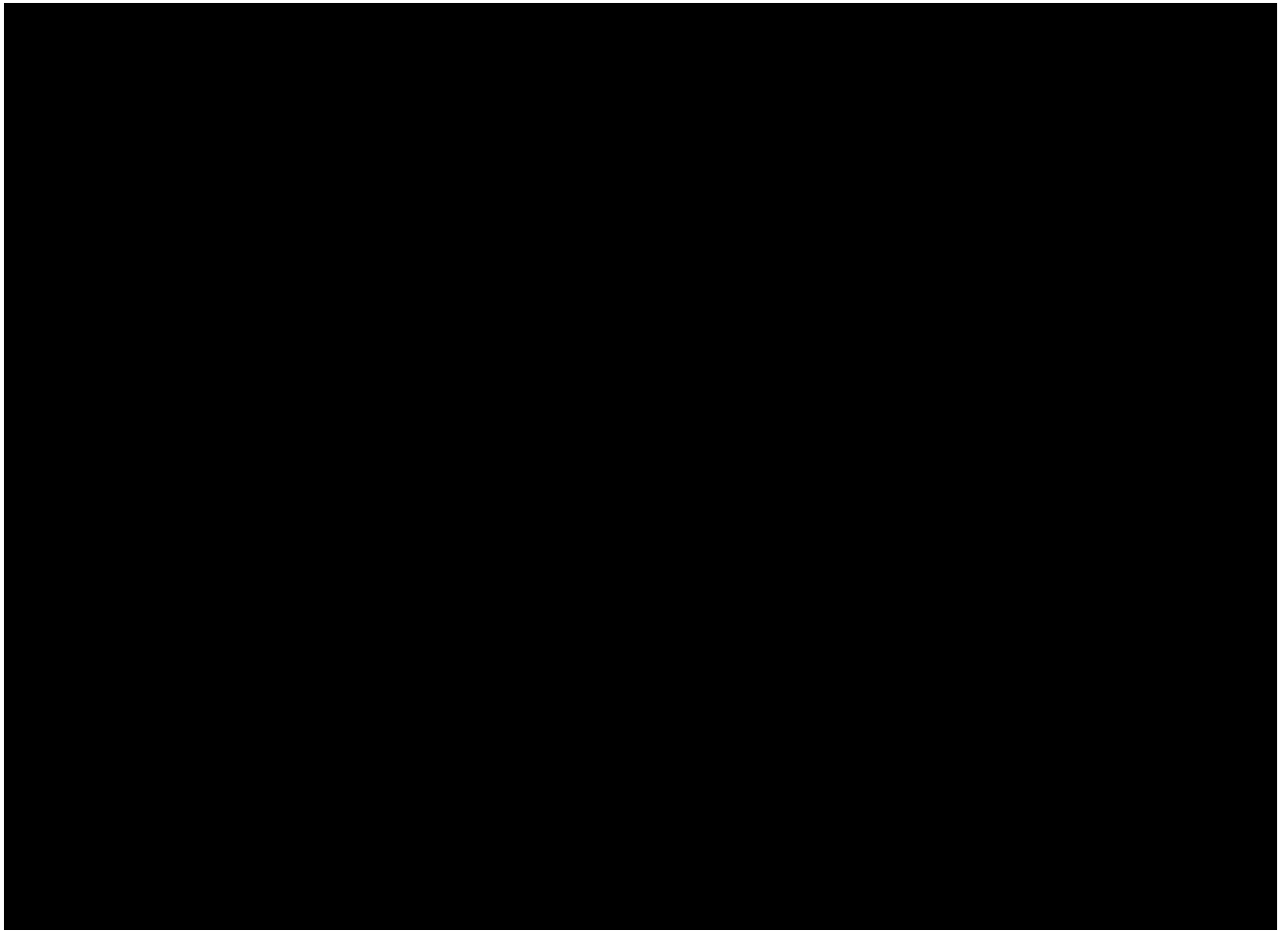
[REDACTED]

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<sup>644</sup> Schedule 18. [1.2]



Figure 40: [REDACTED]



301. [REDACTED]

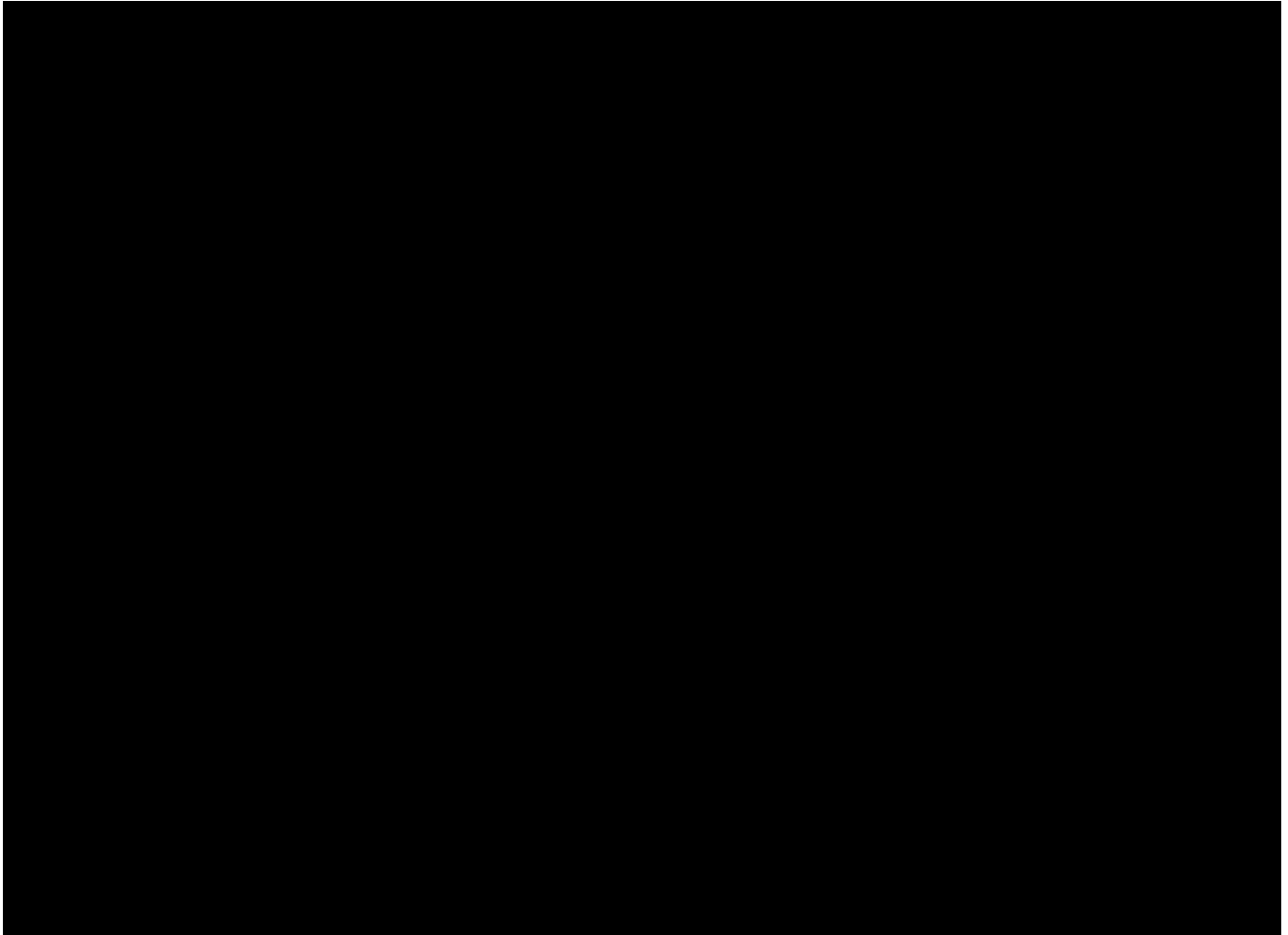
[REDACTED]

[REDACTED]

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<sup>645</sup> Schedule 18. [1.2]

Figure 41: [REDACTED]



302. The chart above shows Apple’s share of realized Worldwide handset profits.



303. Mr. Musika also points out in his discussion of irreparable harm that “[d]ue to the complexity of the calculation and uncertainty regarding specific amounts tied to new purchases of Apple’s products, almost none of the Apple ecosystem sales are captured in the damage calculation.”<sup>647</sup> However, this statement has nothing to do with a discussion of irreparable harm. In fact, Mr. Musika may have had data sufficient to calculate damages from potentially lost sales

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<sup>646</sup> Schedule 18. [1.2]

<sup>647</sup> Musika Report, p. 30. [2.2]

of accessories or lost sales through iTunes, but did not include it in his analysis.<sup>648</sup> If there was any definite harm to Apple from these alleged losses, then the value could easily be calculated. The fact that Mr. Musika chose not to present calculations of certain alleged lost sales does not show that that there exists irreparable harm.

## **B. Apple Is Not Entitled to Lost Profits**

304. As described at length in my disagreements with Mr. Musika, Apple is not entitled to lost profits on the intellectual property at issue in this lawsuit. I describe the basis for my conclusions below.

### **1. Utility Patents**

305. For the asserted utility patents, Samsung has acceptable, non-infringing alternatives available to it. I discuss these alternatives at length in *Georgia-Pacific* factor 9.

306. The only utility patent that would take more than one month to design around is the '607 Patent. However, the first accused product is the Galaxy Tab 7.0 (3G), which was announced on September 16, 2012<sup>649</sup> This announcement would trigger the design around date. Therefore, the design around would be completed prior to the launch of the Galaxy Tab 10.1. Further, as I describe above, Samsung is not entitled to lost profits on the Galaxy Tab 7.0 (3G).

307. Due to the availability of acceptable, non-infringing alternatives and the other reasons described in Section IV.A.3, Apple is not entitled to lost profits on its asserted utility patents.

### **2. Design-Related IP**

308. For the asserted Design-Related IP, Samsung has acceptable, non-infringing alternatives available to it. I discuss these alternatives at length in *Georgia-Pacific* factor 9.

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<sup>648</sup> [REDACTED] APLNDC-Y0000051592-598. [2.37]; [REDACTED]  
[REDACTED] APLNDC-Y0000051606-609 [2.38]

<sup>649</sup> Samsung Press Release: Samsung Mobile Expands Galaxy Product Portfolio with Launch of Samsung Galaxy Tab, September 16, 2010, <[http://www.samsung.com/us/news/newsPreviewRead.do?news\\_seq=19537](http://www.samsung.com/us/news/newsPreviewRead.do?news_seq=19537)>. [15.33]

309. In addition, Mr. Musika has not cited to any evidence demonstrating evidence of demand for “design” and the specific design-related IP at issue. I have concluded above that Apple’s contribution to “design” is at most a small contribution.

310. Due to the availability of acceptable, non-infringing alternatives and failure to demonstrate demand, as well as the other reasons described in Section IV.A.3, Apple is not entitled to lost profits on its asserted design-related IP.

### **C. Opinions Regarding Samsung’s Profits Related to the Design IP**

311. I understand that a remedy that may be available to Apple for Samsung’s infringement of the design-related IP is Samsung’s profits related to the infringement (“Unjust Enrichment”). Mr. Musika has performed a calculation of Samsung’s Unjust Enrichment based on total revenues and based on Samsung’s gross margin, but Mr. Musika has not provided any apportionment in his calculations for Samsung’s contributions other than the design-related IP.<sup>650</sup>

312. As described more fully below, I have concluded that Samsung’s COGS and operating expenses are deductible expenses as they are related to the sale and manufacture of the accused products. I have also performed an apportionment that determines the maximum apportionment of Samsung’s profits on the accused products to the design-related intellectual property at issue.

#### **1. Samsung’s Sales Data**

313. Samsung has produced sales data that include sales data and expense data for STA, SEA, and SEC.<sup>651</sup> The sales data include monthly data covering the period May 2010 through December 2011 for 30 Samsung products.<sup>652</sup> For each of the 3 Samsung entities, the

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<sup>650</sup> Musika Report, pp. 23-25. [2.2]

<sup>651</sup> Exhibit 2620 to Deposition of Timothy Sheppard, March 30, 2012, SAMNDCA00376623-901. [14.1]

<sup>652</sup> The Samsung sales data includes data for the “Galaxy Tab 7.0” and the “Galaxy Tab 8.9.” I understand that the Galaxy Tab 8.9 is not an accused product, therefore I do not include the Galaxy Tab 8.9 in my calculations. (Musika Report, p. 48. [2.2]) The “Galaxy Tab 7.0” was first sold by SEA in October 2011; based upon a comparison of Mr. Musika’s reported sales for the product he calls “Galaxy Tab” in Exhibit 38.1 to Samsung’s sales data, it appears that Mr. Musika is including the product “Galaxy Tab 7.0 (3G)” in his calculations, but he is excluding the product “Galaxy Tab 7.0.” Therefore, I do not include the profits for the “Galaxy Tab 7.0” in my calculations of Samsung’s profits.

sales data include quantity (in units), sales (\$), cost of goods sold (COGS), and operating expenses broken down into major operating expense categories.

314. SEA and STA are the only Samsung entities that sell into the United States,<sup>653</sup> therefore Samsung's U.S. sales of the accused products are determined by the sales of the accused products by SEA and STA. Mr. Sheppard testified that STA sells Samsung's mobile phones in the United States and the sales of the tablets are split so that tablets that can connect to a cellular network are sold by STA and those that cannot (e.g., wifi-only tablets) are sold by SEA.<sup>654</sup>

315. The following figure provides a summary for STA and SEA of the quantity sold, revenue, and ASP for each of the accused products:

**Figure 42: Consolidated SEA and STA Revenue, Quantity, and ASP for Accused Products<sup>655</sup>**

Product	2010			2011			2010 - 2011 Total		
	Revenue	Quantity	ASP	Revenue	Quantity	ASP	Revenue	Quantity	ASP
Acclaim	\$69,626,621	209,662	\$332	\$6,918,626	30,179	\$229	\$76,545,246	239,841	\$319
Captivate	\$325,163,101	732,869	\$444	\$198,540,962	658,440	\$302	\$523,704,063	1,391,309	\$376
Continuum	\$73,338,883	173,560	\$423	\$38,720,356	146,614	\$264	\$112,059,239	320,174	\$350
Droid Charge	\$0	0	\$0	\$351,465,501	699,366	\$503	\$351,465,501	699,366	\$503
Epic 4G	\$363,131,713	702,727	\$517	\$458,714,814	1,092,661	\$420	\$821,846,527	1,795,388	\$458
Exhibit 4G	\$0	0	\$0	\$72,952,506	283,073	\$258	\$72,952,506	283,073	\$258
Fascinate	\$468,640,215	1,027,206	\$456	\$150,478,565	406,820	\$370	\$619,118,780	1,434,026	\$432
Galaxy Ace	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
Galaxy Prevail	\$0	0	\$0	\$258,911,331	1,536,840	\$168	\$258,911,331	1,536,840	\$168
Galaxy S (i9000)	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
Galaxy S 4G	\$0	0	\$0	\$395,281,186	1,145,702	\$345	\$395,281,186	1,145,702	\$345
Galaxy S II 2 (AT&T)	\$0	0	\$0	\$179,853,040	383,661	\$469	\$179,853,040	383,661	\$469
Gem	\$0	0	\$0	\$63,595,570	374,101	\$170	\$63,595,570	374,101	\$170
Gravity / Gravity Smart	\$0	0	\$0	\$90,123,928	473,669	\$190	\$90,123,928	473,669	\$190
Hercules / Galaxy S II (T-Mobile)	\$0	0	\$0	\$195,794,628	432,286	\$453	\$195,794,628	432,286	\$453
Indulge	\$0	0	\$0	\$98,221,588	270,612	\$363	\$98,221,588	270,612	\$363
Infuse 4G	\$0	0	\$0	\$360,510,494	850,643	\$424	\$360,510,494	850,643	\$424
Intercept	\$196,295,412	857,530	\$229	\$67,358,564	380,030	\$177	\$263,653,976	1,237,560	\$213
Mesmerize	\$56,630,363	119,630	\$473	\$204,644,961	537,339	\$381	\$261,275,324	656,969	\$398
Nexus S	\$26,813,136	56,000	\$479	\$25,002,235	77,885	\$321	\$51,815,371	133,885	\$387
Nexus S 4G	\$0	0	\$0	\$193,031,315	504,068	\$383	\$193,031,315	504,068	\$383
Replenish	\$0	0	\$0	\$92,376,320	602,887	\$153	\$92,376,320	602,887	\$153
Showcase / Galaxy S Showcase (i500)	\$15,649,036	31,500	\$497	\$88,312,660	233,016	\$379	\$103,961,695	264,516	\$393
Sidekick	\$0	0	\$0	\$133,425,648	429,240	\$311	\$133,425,648	429,240	\$311
Transform	\$66,346,493	238,640	\$278	\$86,278,041	365,330	\$236	\$152,624,535	603,970	\$253
Vibrant	\$428,544,127	973,166	\$440	\$16,615,189	47,877	\$347	\$445,159,316	1,021,043	\$436
Galaxy Tab 7.0 (3G) / Galaxy Tab	\$154,345,456	262,099	\$589	\$147,532,169	403,521	\$366	\$301,877,625	665,620	\$454
Galaxy Tab 10.1 / Galaxy Tab 10.1 (WiFi)	\$0	0	\$0	\$205,516,283	480,023	\$428	\$205,516,283	480,023	\$428
Total	\$2,244,524,556	5,384,589	\$417	\$4,180,176,479	12,845,883	\$325	\$6,424,701,035	18,230,472	\$352

## 2. Samsung's Deductible Expenses

<sup>653</sup> Deposition of Jaehwang Sim, March 10, 2012, pp. 119-120, 142-143. [4.5]

<sup>654</sup> Deposition of Timothy Sheppard, January 24, 2012, pp. 26-28, 87. [3.22]

<sup>655</sup> Schedule {15.1}. [1.2]

316. Samsung has provided detailed, monthly sales and expense data for each accused product. Other than one adjustment that I describe below relating to the COGS reported in the manufacturing section, I understand that the expense data reported in Samsung's financial data are extracted directly from Samsung's SAP financial data.<sup>656</sup>

317. I have reviewed each category of cost included in the data and have had conversations with Samsung employees<sup>657</sup> to confirm that the expense items included in Samsung's financial data are deductible expenses.

**a) SEC's Deductible Expenses**

318. Samsung's financial data includes a section titled "Manufacturing" that includes sales data and expense data for SEC and two Chinese manufacturing subsidiaries.<sup>658</sup> This data includes the accused products that are manufactured to be sold worldwide,<sup>659</sup> therefore, for many accused products the manufacturing quantity is significantly higher than the sales of SEA and SEC.

319. As discussed by SEC's 30(b)(6) witness on its financial data, Mr. Sim, in its latest financial data productions, Samsung has adjusted the COGS reported in the data in order to "zero out" the manufacturing profits of the Chinese manufacturing subsidiaries.<sup>660</sup> Mr. Musika has performed adjustments to his calculations in order to reverse the effect of these adjustments.<sup>661</sup>

320. In my calculations, I rely on SEC's COGS that do not include any adjustment for the Chinese manufacturing subsidiaries. Samsung's early productions of financial data did not include any adjustment for the Chinese manufacturing subsidiaries,<sup>662</sup> therefore, I rely on the

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<sup>656</sup> Deposition of Jaehwang Sim, March 10, 2012, pp. 34-35. [4.5] See also Deposition of Timothy Sheppard, February 29, 2012, p. 84. [10.13] See also Deposition of Timothy Sheppard, March 30, 2012, p. 150. [13.3]

<sup>657</sup> Conversation with Dongyul Choi, April 15, 2012.

<sup>658</sup> The Manufacturing section includes data for SEC Korea, SEHZ, and TSTC, the latter two of which are the Chinese manufacturing subsidiaries. (Deposition of Jaehwang Sim, March 10, 2012, p. 114. [4.5])

<sup>659</sup> Deposition of Jaehwang Sim, March 10, 2012, pp. 112-113. [4.5]

<sup>660</sup> Deposition of Jaehwang Sim, March 31, 2012, pp. 242, 261. [13.4] See also Deposition of Timothy Sheppard, March 30, 2012, pp. 147-148. [13.3]

<sup>661</sup> Musika Report, pp. 49-50. [2.2]

<sup>662</sup> Deposition of Jaehwang Sim, March 10, 2012, pp. 35-37, 43-48. [4.5]

COGS reported in Samsung's earlier financial spreadsheets for the purposes of calculating SEC's deductible expense.<sup>663</sup>

321. To determine whether SEC's reported expenses are deductible, I have reviewed several deposition transcripts of Samsung financial witnesses and had a conversation with Mr. Jaehwang Sim, a Vice President in SEC's Management Support Team, to gain a better understanding of the costs included in the different expense categories.

322. The largest cost category for SEC is the cost of goods sold for the accused products. Based on my conversation with Mr. V.P. Sim, I understand that the COGS expense includes direct expenses such as direct labor and royalties and indirect expenses such as indirect manufacturing labor cost and manufacturing overhead such as utility costs. These costs are necessary for the manufacture of the accused products and are therefore deductible expenses. I note that it appears Mr. Musika does not contest that COGS will be found to be deductible expenses, as he has performed an Unjust Enrichment calculation taking these COGS into account.<sup>664</sup>

323. As part of its calculation of the operating expenses (and COGS to a lesser degree), Samsung allocates expenses that are not directly related to a specific product. Samsung's financial witnesses have described that Samsung's allocation methodology follows a three-step allocation process. Timothy Sheppard, STA's Vice President of Finance and Operations, describes the three-step process as follows.<sup>665</sup>

First, any expenses that are incurred specifically with respect to a particular model are allocated to that model;

Second, costs that are not specific to a given model are allocated to various cost centers. So, for example, the lease of a building will be allocated to various cost centers. If that allocation can be undertaken on the basis of usage, that method will be used. For example, if the sales team that works with Sprint takes up two thousand square feet of a four thousand square foot building, half of the rent will be allocated to that Sprint sales team. Alternatively, if the usage methodology is not practical, the revenue method will be used.

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<sup>663</sup> Exhibit 1922 to the Deposition of Timothy Sheppard, March 30, 2012, SAMNDCA00354292-385. [15.14]

<sup>664</sup> Musika Report, pp. 24-25. [2.2]

<sup>665</sup> Declaration of Timothy Sheppard in Support of Samsung's Opposition to Apple's Motion for Rule 37(b)(2) Sanctions for Samsung's Alleged Violations of January 27, 2012 Damages Discovery Order, March 12, 2012, (hereafter, "Sheppard Declaration") p. 8. [4.17] See *also* Deposition of Timothy Sheppard, February 29, 2012, pp. 60-64, 92-97, 99. [10.13] See *also* Deposition of Jaehwang Sim, March 10, 2012, pp. 120-121, 134-137. [4.5]

The third and final step is to then take common cost centers, for example, the HR department or the accounting group and allocate those costs across devices.

324. This allocation procedure is used in Samsung's ordinary course of business,<sup>666</sup> and is instituted as part of Samsung's monthly closing process.<sup>667</sup> This type of allocation methodology is a reasonable method to allocate indirect expenses. I note that Apple's 30(b)(6) witness on financial topics [REDACTED]

325. Based on my conversation with Dongyul Choi,<sup>669</sup> I understand that the different operating expense categories include:

- GA Expense – Labor Cost: General & Administrative Staff labor cost
- GA Expense – Depreciation: G&A Staff office supplies and depreciation cost
- GA Expense – Others: IT support cost, 3<sup>rd</sup> party service expense cost
- Sales Expense – Marketing: Advertising, promotion, and sales commissions
- Sales Expense – Paid Commission: Sales expenses related to 3<sup>rd</sup> party subcontractors<sup>670</sup>
- Sales Expense – Insurance: all Insurance Cost
- Sales Expense – Others: Sales personnel labor cost, transportation cost, service costs.
- R&D Expense – Labor Cost: R&D related labor cost<sup>671</sup>
- R&D Expense – Depreciation: R&D related equipment depreciation
- R&D Expense – Others: R&D material cost, 3<sup>rd</sup> party R&D costs.<sup>672</sup>

326. Based on my discussions, these costs are necessary for the manufacture and sale of the accused products and are therefore deductible expenses.

327. One expense that I requested more information about is whether any litigation expense related to the current lawsuit is included in the expense data. I received financial data

<sup>666</sup> Sheppard Declaration, p. 8. [4.17]

<sup>667</sup> Deposition of Timothy Sheppard, February 29, 2012, pp. 65-67, 96-97. [10.13] Deposition of Timothy Sheppard, March 30, 2012, pp. 77-78. [13.3]

<sup>668</sup> Deposition of Mark Buckley, February 23, 2012, p. 104. [5.2]

<sup>669</sup> Conversation with Dongyul Choi, April 15, 2012

<sup>670</sup> Deposition of Jaehwang Sim, March 31, 2012, p. 251. [13.4] See *also* Deposition of Jaehwang Sim, March 10, 2012, pp. 127-129. [4.5]

<sup>671</sup> Deposition of Jaehwang Sim, March 10, 2012, p. 138. [4.5]

<sup>672</sup> Deposition of Jaehwang Sim, March 10, 2012, p. 138. [4.5]



that breaks out the legal expense related to this lawsuit that has been allocated to each accused product on a worldwide basis; the allocated lawsuit expense is a component of COGS, therefore I deduct the litigation expenses from the worldwide COGS in my calculations and thereby increase my calculation of profits.

328. In summary, I have determined that all of the expenses in the Manufacturing section of the financial data are deductible expenses except the expenses related to the current lawsuit that have been allocated to the accused products.

**b) STA's and SEA's Deductible Expenses**

329. The expense categories included in the financial data are identical between SEA and STA, and Timothy Sheppard verified that the expenses are reported in a similar fashion,<sup>673</sup> so I analyze the deductible expenses of STA and SEA together. In my discussion below, I will refer to STA, but the SEA treatment is identical.<sup>674</sup>

330. Similar to SEC, STA's largest expense is COGS. I understand that the large majority of COGS is the transfer price from SEC to STA, but other expenses such as repair, inventory value adjustments, scrap, and physical inventory adjustments are also included in STA's COGS.<sup>675</sup> Mr. Sim testified that "When it comes to COGS under STA, it includes purchase cost, purchase price for the products obtained from a manufacturer. And there is also costs related to importing products, additional costs. So you can consider this figure in COGS hundred percent direct cost."<sup>676</sup>

331. Because STA's COGS are directly related to the sale of the accused products, STA's COGS are a deductible expense for the purpose of calculating STA's profit. However, when calculating the consolidated profitability of SEC, STA, and SEA, the transfer price between SEC and STA is not a deductible expense because it is a cost to STA and revenue to SEC. Therefore, I do not treat the transfer price as a deductible expense when calculating the profitability including SEC. I do not make any deduction for the cost categories other than the transfer price in COGS and remove the effect of the STA's and SEA's COGS for the calculation of the consolidated profitability of SEC, STA, and SEA.

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<sup>673</sup> Conversation with Timothy Sheppard, April 13, 2012.

<sup>674</sup> Conversation with Timothy Sheppard, April 13, 2012. See also Deposition of Jaehwang Sim, March 31, 2012, p. 239. [13.4]

<sup>675</sup> Conversation with Timothy Sheppard, April 13, 2012.

<sup>676</sup> Deposition of Jaehwang Sim, March 31, 2012, p. 227. [13.4]

332. Based on the discussion in Mr. Musika's report, I understand that Apple may contest that 100% of the transfer price is a deductible expense when calculating the profitability of SEA and STA.<sup>677</sup> As Samsung's financial witnesses have explained, the transfer price is set based on an agreement between Samsung and the U.S. government.<sup>678</sup> Mr. Sheppard testified that "the negotiation for the APA is really a three-party negotiation between the Korean IRS, the U.S. IRS, and Samsung to say based on our economic activity, they hire economists, we hire economists, the Korean government hires economists and says based on the activity STA does, this is a fair and reasonable amount of profit that reflects the activity that STA is doing. Based on that, that's how the tax is paid."<sup>679</sup> I do not see any reason why an adjustment would need to be made to the transfer price.

333. Based on my conversation with Tim Sheppard,<sup>680</sup> I understand that the different operating expense categories include:<sup>681</sup>

- GA Expense – Labor Cost: General & Administrative Staff labor cost (salaries, overtime, bonuses, benefits, etc.)
- GA Expense – Depreciation: All depreciation for fixed assets (computers, office equipment, etc.)
- GA Expense – Others: Travel expenses, telephone expenses, building expenses for accounting, IT, HR, facilities, legal, and management,
- Sales Expense – Logistics Cost: Warehousing and freight (moving products)
- Sales Expense – Paid Commission: Primarily Temporary staff
- Sales Expense – Insurance: Property and general liability insurance.
- Sales Expense – Others: Travel expenses, telephone expenses, building expenses for sales cost centers
- Operating Expenses – Other: small miscellaneous items.

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<sup>677</sup> For example, Mr. Musika states in his report that "Further, I have added back the \$1,342,194,158 of profits that Samsung removed in its latest version which Samsung admits represents the profit earned by Samsung on the sale of the accused devices in the U.S. and transferred to a Chinese subsidiary of Samsung under a transfer pricing agreement to avoid U.S. taxation." (Musika Report, p. 50. [2.2]) I note that it appears that Mr. Musika does not understand the issue with respect to the Chinese manufacturing subsidiaries – this issue has no impact whatsoever on the U.S. taxation. The only shifting would be between Chinese taxing authorities and Korean taxing authorities.

<sup>678</sup> Deposition of Timothy Sheppard, January 24, 2012, pp. 21-22, 35, 62-63, 82-83, 115-116. [3.22] See *also* Advance Pricing Agreement between Samsung Electronics American, Inc. and The Internal Revenue Service, S-ITC-007274461 – 476. [4.18] See *also* Deposition of Timothy Sheppard, February 29, 2012, pp. 123-129. [10.13]

<sup>679</sup> Deposition of Timothy Sheppard, February 29, 2012, pp. 125-126. [10.13]

<sup>680</sup> Conversation with Timothy Sheppard, April 16, 2012.

<sup>681</sup> The financial data includes a Sales Expenses – Marketing line, but the expenses are zero because SEC reimburses STA for marketing expense. (Deposition of Jaehwang Sim, March 31, 2012, pp. 251-252. [13.4] See *also* Deposition of Timothy Sheppard, March 30, 2012, p. 98. [13.3])

334. Based on my discussions, these costs are necessary for the manufacture and sale of the accused products and are therefore deductible expenses. Mr. Sheppard testified that STA is “primarily a sales organization.”<sup>682</sup>

335. In summary, I have determined that all of the expenses in the Manufacturing section of the financial data are deductible expenses.

### **3. Calculation of Samsung's Profits on the Accused Products**

336. I understand that several damages periods may be relevant depending on which design-related intellectual property is found to be found valid and infringed, so I have calculated profits for the entire period of sales of accused products, from the filing of the Complaint on April 15<sup>th</sup>, 2011,<sup>683</sup> and from the filing of the Amended Complaint on June 16, 2011.<sup>684</sup> In addition, I understand that the Court may determine that the damages period may be cut-off for certain periods, so I have included monthly calculations of profits for each accused product in Schedules 21.1 – 21.28 at Volume 1, Tab 2 of my report.

337. In addition to the three different damages periods for which I calculate profits, I also calculate profits for (i) STA and SEA only; and (ii) SEC, STA, and SEA.

338. In preparing to calculate Samsung's profits on the accused products, I first calculate period totals across all products for the 2010, 2011, the period April 15, 2011 to December 31, 2011, and the period June 16, 2011 to December 31, 2011. I then aggregate STA and SEA financials by product, report them on a per unit basis, and calculate Manufacturing expenses on a per unit basis. I then apply the per unit manufacturing expenses and SEA / STA per unit expenses to determine the per unit profitability, and finally multiply by the number of units sold to determine the profit for each accused product. The calculations of profitability are in the {4} Series of Schedules at Volume 1, Tab 2 of my report.

339. My calculations of profits on the accused products after deductible expenses are as follows:

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<sup>682</sup> Deposition of Timothy Sheppard, January 24, 2012, p. 24. [3.22]

<sup>683</sup> Apple Inc.'s Complaint for Patent Infringement, April 15, 2011. [15.32]

<sup>684</sup> Apple Inc.'s Amended Complaint, June 16, 2011. [2.1]

**Figure 43: STA and SEA Profit After Deductible Expenses<sup>685</sup>**

Product	2010	2011	Total	4/15-12/31 2011	6/16-12/31 2011
	[a]	[b]		[c]	[d]
Acclaim	253,951	(153,320)	100,631	124,223	(224)
Captivate	(1,029,232)	(23,847,685)	(24,876,917)	(12,583,783)	(5,535,776)
Continuum	1,066,374	(1,114,918)	(48,543)	2,185,420	2,232,975
Droid Charge	0	5,036,076	5,036,076	1,907,628	(4,310,711)
Epic 4G	6,378,362	(4,730,762)	1,647,600	(8,425,317)	(10,512,009)
Exhibit 4G	0	(2,080,773)	(2,080,773)	(2,080,773)	(1,885,986)
Fascinate	21,214,285	(4,317,278)	16,897,006	(700,979)	2,063,139
Galaxy Ace	0	0	0	0	0
Galaxy Prevail	0	(9,606,825)	(9,606,825)	(9,589,590)	(11,573,719)
Galaxy S (i9000)	0	0	0	0	0
Galaxy S 4G	0	6,858,508	6,858,508	3,677,846	5,866,351
Galaxy S II 2 (AT&T)	0	7,885,996	7,885,996	7,885,996	7,885,996
Gem	0	35,320	35,320	(51,304)	(1,397,111)
Gravity / Gravity Smart	0	2,283,523	2,283,523	2,283,523	1,155,547
Hercules / Galaxy S II (T-Mobile)	0	6,733,744	6,733,744	6,733,744	6,733,744
Indulge	0	(2,642,589)	(2,642,589)	(2,208,091)	286,846
Infuse 4G	0	6,427,730	6,427,730	6,341,106	(1,617,124)
Intercept	2,546,956	(6,952,014)	(4,405,058)	(4,539,358)	(5,343,556)
Mesmerize	(1,258,112)	10,861,835	9,603,723	7,432,724	5,593,475
Nexus S	1,067,438	(6,526,271)	(5,458,833)	(4,071,850)	(3,108,000)
Nexus S 4G	0	(10,264,271)	(10,264,271)	(11,383,559)	(21,436,246)
Replenish	0	(8,820,398)	(8,820,398)	(8,830,532)	(9,020,041)
Showcase / Galaxy S Showcase (i500)	243,323	4,249,135	4,492,458	2,991,528	3,414,994
Sidekick	0	716,229	716,229	63,670	(1,646,855)
Transform	(373,973)	(1,293,049)	(1,667,022)	(5,439,364)	(4,287,505)
Vibrant	(358,318)	(3,118,013)	(3,476,331)	1,939,225	508,864
Galaxy Tab 7.0 (3G) / Galaxy Tab	2,711,475	(15,910,846)	(13,199,371)	3,679,836	6,088,612
Galaxy Tab 10.1 / Galaxy Tab 10.1 (WiFi)	0	2,247,652	2,247,652	2,247,652	(1,120,382)
<b>Profit After Deductible Expenses</b>	<b>32,462,528</b>	<b>(48,043,266)</b>	<b>(15,580,737)</b>	<b>(20,410,379)</b>	<b>(40,964,700)</b>

<sup>685</sup> Schedule {4.2}. [1.2]

**Figure 44: SEC, STA, and SEA Profit After Deductible Expenses<sup>686</sup>**

Product	2010	2011	Total	4/15-12/31 2011	6/16-12/31 2011
	[a]	[b]		[c]	[d]
Acclaim	11,713,957	293,726	12,007,684	163,541	(1,626)
Captivate	77,500,025	(57,504,428)	19,995,597	(47,244,434)	(28,256,631)
Continuum	3,138,769	(5,601,685)	(2,462,916)	(596,504)	(1,606,787)
Droid Charge	0	31,271,514	31,271,514	19,862,327	(6,808,255)
Epic 4G	78,164,952	109,347,134	187,512,086	64,078,343	11,135,389
Exhibit 4G	0	4,201,778	4,201,778	4,201,778	(769,470)
Fascinate	169,826,443	7,199,476	177,025,919	5,787,251	2,174,773
Galaxy Ace	0	0	0	0	0
Galaxy Prevail	0	34,312,656	34,312,656	32,327,912	15,316,667
Galaxy S (i9000)	0	0	0	0	0
Galaxy S 4G	0	99,030,703	99,030,703	41,227,979	30,466,488
Galaxy S II 2 (AT&T)	0	43,879,723	43,879,723	44,209,907	47,126,997
Gem	0	(9,523,724)	(9,523,724)	(5,228,630)	(5,392,143)
Gravity / Gravity Smart	0	6,190,918	6,190,918	6,190,918	5,635,551
Hercules / Galaxy S II (T-Mobile)	0	25,347,041	25,347,041	25,347,041	25,347,041
Indulge	0	19,393,729	19,393,729	1,042,697	3,544,731
Infuse 4G	0	63,269,386	63,269,386	61,993,129	29,605,277
Intercept	24,388,214	514,932	24,903,147	1,476,783	(572,740)
Mesmerize	8,106,857	49,910,592	58,017,449	25,907,233	12,503,812
Nexus S	3,326,481	(547,846)	2,778,635	(4,070,732)	(2,769,979)
Nexus S 4G	0	35,963,315	35,963,315	31,595,496	(16,046,709)
Replenish	0	(2,833,831)	(2,833,831)	(5,444,660)	(8,353,822)
Showcase / Galaxy S Showcase (i500)	4,238,963	8,949,649	13,188,612	4,352,442	1,420,458
Sidekick	0	10,229,116	10,229,116	9,368,217	4,661,129
Transform	10,652,191	1,055,071	11,707,263	(11,675,803)	(6,996,190)
Vibrant	99,768,229	(7,655,602)	92,112,627	1,751,516	505,522
Galaxy Tab 7.0 (3G) / Galaxy Tab	36,814,081	(13,561,771)	23,252,310	7,031,226	8,489,194
Galaxy Tab 10.1 / Galaxy Tab 10.1 (WiFi)	0	8,781,044	8,781,044	8,781,044	4,243,838
<b>Profit After Deductible Expenses</b>	<b>527,639,164</b>	<b>461,912,616</b>	<b>989,551,780</b>	<b>322,436,018</b>	<b>124,602,517</b>

#### 4. Apportionment of Profit to the Design-Related IP at Issue

340. Determining the profits of the accused products is the first step of the Unjust Enrichment calculation. Next, the profits should be apportioned to the design-related IP at issue versus everything else that is contributed by Samsung. I understand that Apple is likely to take the position that Samsung is not entitled to apportion its profits for the asserted design patents; this is a legal issue for which I do not have an opinion. I calculate an apportionment for each design-related IP group, and leave it to the Court to determine whether I can apply the apportionment for the design patents.

341. As I have discussed at length in this report, the design-related IP at issue in this lawsuit is a small portion of the total design relevant for the accused products. In addition,

<sup>686</sup> Schedule {4.1}. [1.2]

design as a whole is a small portion of the value to consumers of smartphones. Therefore, a proper apportionment is critical to avoid providing a windfall to Apple of the entirety of Samsung’s profits.

342. Even Apple itself highlighted the value of other smartphone features, rather than industrial design, during its licensing discussions with Samsung. During the October 5, 2010 meeting with Samsung, [REDACTED] [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

343. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

<sup>687</sup> Deposition of Richard J. Lutton, Jr., July 26, 2011, p. 181. [14.7]

<sup>688</sup> [REDACTED]  
APLNDC00010886-903 at ‘893. [14.8]

<sup>689</sup> [REDACTED]  
APLNDC00010886-903 at ‘889. [14.8]

<sup>690</sup> [REDACTED]  
APLNDC00010886-903 at ‘889. [14.8]

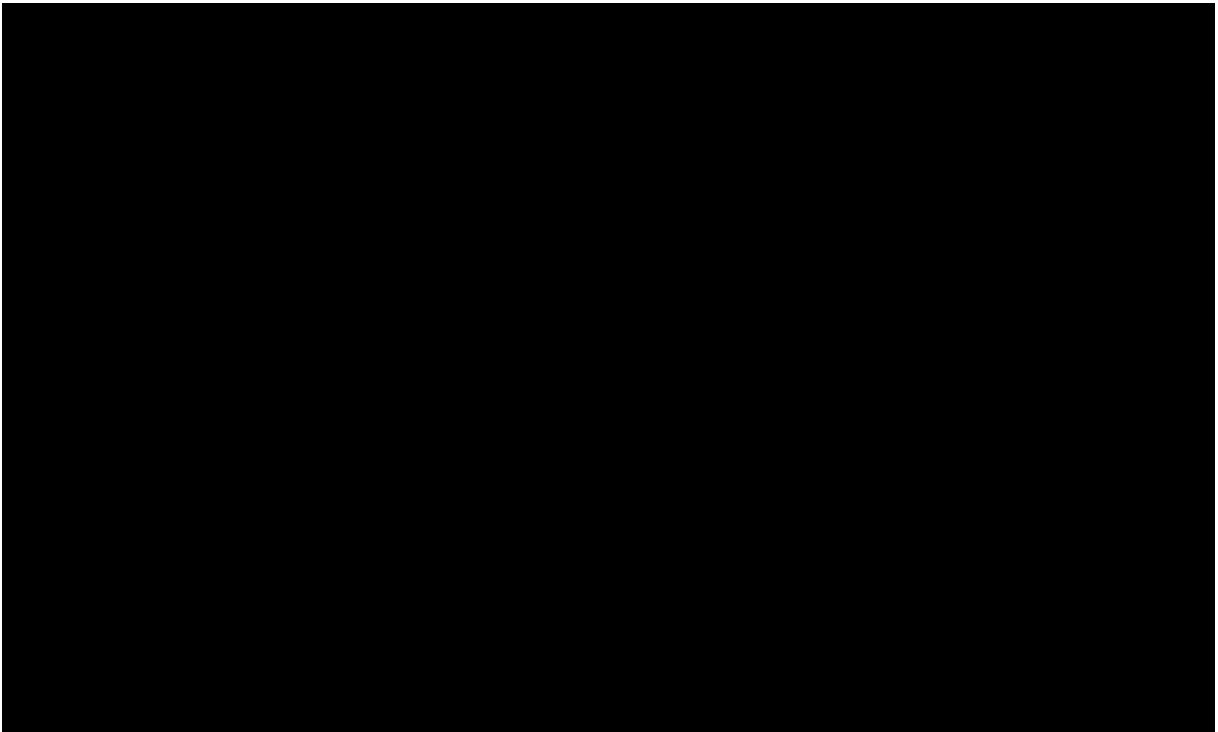
<sup>691</sup> [REDACTED]  
APLNDC00010886-903 at ‘889. [14.8]

<sup>692</sup> [REDACTED]  
APLNDC00010886-903 at ‘890. [14.8]

<sup>693</sup> [REDACTED]  
APLNDC00010886-903 at ‘891. [14.8]

<sup>694</sup> [REDACTED]  
APLNDC00010886-903 at ‘891. [14.8]

Figure 45: [REDACTED]



344. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

345. The discovery record includes several consumer studies that can be used to determine a maximum apportionment for design as a whole.

**a) Apportionment to “Design”**

346. In this section, I analyze the importance of design to smartphone buyers and owners in comparison to other smartphone’s features and attributes. To perform this analysis, I

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695 [REDACTED]  
APLNDC00010886-903 at ‘892. [14.8]  
696 [REDACTED]  
APLNDC00010886-903 at ‘898. [14.8]





Figure 46: [REDACTED]



349. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

350. I have calculated a reasonable apportionment for design [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

701 [REDACTED] APLNDC-Y0000027256-340 at  
"277. [3.14]"

702 [REDACTED] APLNDC-  
Y0000027256-340 at "267-278. [3.14]"

703 [REDACTED] APLNDC-Y0000027256-340 at  
"277. [3.14]"

[REDACTED]

351. [REDACTED]

352. [REDACTED]

(2) [REDACTED]

353. [REDACTED]

---

<sup>704</sup> [REDACTED] APLNDC-Y0000027256-340 at 267-285. [3.14]

<sup>705</sup> 8 Series of Schedules. [1.2]

<sup>706</sup> 8 Series of Schedules. [1.2]

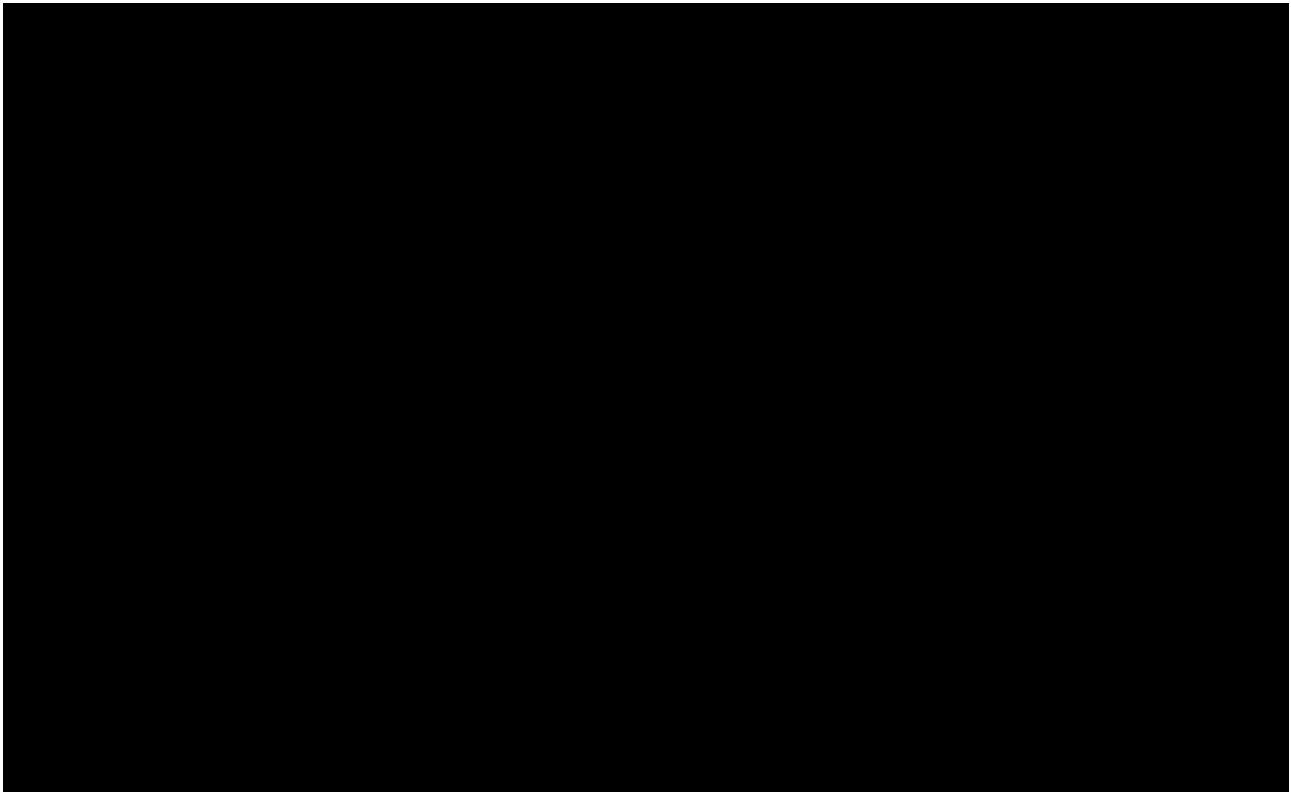
<sup>707</sup> 8 Series of Schedules. [1.2]

<sup>708</sup> 8 Series of Schedules. [1.2]

<sup>709</sup> [REDACTED] APLNDC0002521932-964 at '936. [14.10]

<sup>710</sup> [REDACTED] APLNDC0002521932-964 at '957. [14.10]

Figure 47: [REDACTED]



354. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

355. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED] These

are additional measures of apportionment of the value of design.

---

<sup>711</sup> 8 Series of Schedules. [1.2]

<sup>712</sup> [REDACTED] APLNDC0002521932-964 at '957.  
[14.10]

<sup>713</sup> [REDACTED] APLNDC0002521932-964 at '957.  
[14.10]

<sup>714</sup> [REDACTED] APLNDC0002521932-964 at '957.  
[14.10]

<sup>715</sup> 8 Series of Schedules. [1.2]

**(3) J.D. Power and Associates Studies**

*(a) Weight given to design category*

356. J.D. Power and Associates has conducted Wireless Smartphone Satisfaction Studies to understand attitudes, experiences and behavioral characteristics of smartphone users and determine factors that impact customer satisfaction across smartphone user segments.<sup>716</sup> In particular, J.D. Power and Associates uses its proprietary model to break down a smartphone into factors and attributes. One of the attributes that J.D. Power and Associates asks about is “Styling of wireless phone,” which falls within the “Physical Design” category along with “Strength and durability,” “clarity of display,” and “weight of wireless phone.”<sup>717</sup> According to the weightings in the November 2011 J.D. Power and Associates study, a weighting of 20 percent was given to the smartphone’s physical design, and within the physical design, 25 percent was assigned to “Styling of wireless phone.”<sup>718</sup> Therefore, styling was assigned a total weight of five percent. (20% \* 25%)

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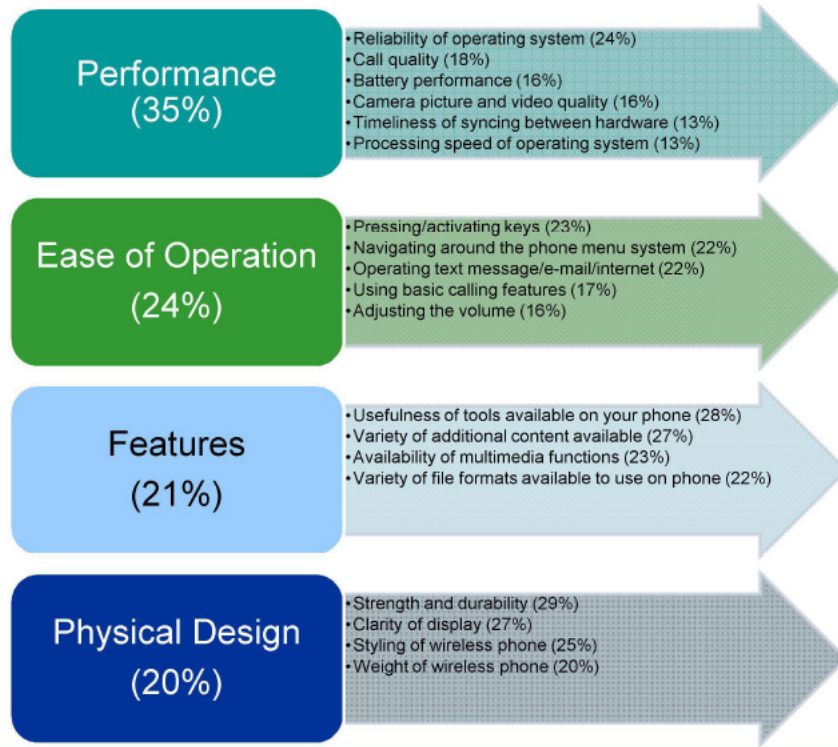
<sup>716</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '343. [13.9]

<sup>717</sup> J.D. Power and Associates 2011 U.S. Wireless Mobile Phone Study Results Presentation Volume 2, November 14, 2011, SAMNDCA00282033-088 at '035 and '062. [13.7]

<sup>718</sup> J.D. Power and Associates 2011 U.S. Wireless Mobile Phone Study Results Presentation Volume 2, November 14, 2011, SAMNDCA00282033-088 at '035 and '062. [13.7]

Figure 48: Smartphone Factors and Attributes<sup>719</sup>

## Smartphone Factors and Attributes



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357. A March 2011 Power and Associates study included “visual appeal of your wireless phone” within the “physical design” category. The weighting for the physical design category was 23 percent, and the visual appeal had a 22 percent weighting of the category, which corresponds to a total weighting of about 5 percent of the smartphone (23% \* 22%).<sup>720</sup>

358. These data points are good measures of an appropriate apportionment for design because a third party (J.D. Power and Associates) has determined the weightings and uses the weights in its industry consulting.

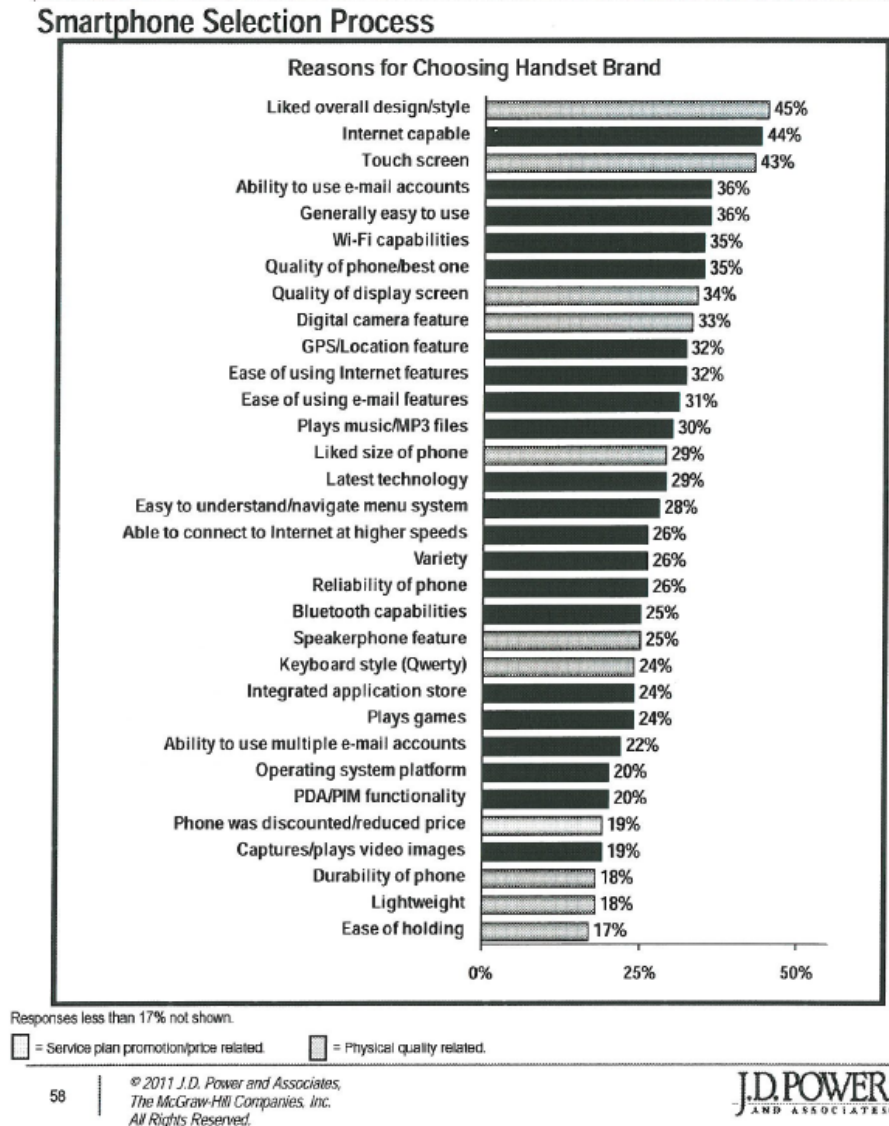
<sup>719</sup> J.D. Power and Associates 2011 U.S. Wireless Mobile Phone Study Results Presentation Volume 2, November 14, 2011, SAMNDCA00282033-088 at '035 and '062. [13.7]

<sup>720</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '380. [13.9]

(b) Survey results

359. Similar to Apple's studies, in its March 2011 study, J.D. Power and Associates also analyzed the smartphone selection process.<sup>721</sup> According to the study, reasons for choosing the smartphone manufactures included "Liked Overall Design / Style" (45%), "Internet Capable" (44%), "Touch Screen" (43%), and others presented in Figure 49 below.<sup>722</sup>

Figure 49: Reasons for Choosing Handset Brand<sup>723</sup>



<sup>721</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '393-'400. [13.9]

<sup>722</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '395. [13.9]

360. To analyze the importance of the “Overall design/style” relative to the other reasons for choosing a handset brand, I have divided the percent of respondents that listed the overall design/style as a purchase reason by the cumulative percent of respondents that considered other reasons in their smartphone selection process. I have calculated a 5 percent apportionment based on the survey responses.<sup>724</sup>

#### **(4) Conclusion**

361. These consumer surveys discussed in this section provide a relatively consistent range for apportionment of value to design, [REDACTED] Based on my review of these surveys, I have concluded that five percent is an appropriate apportionment of value to design as a whole.

#### **b) Apportionment of Design to Specific Design-Related IP at Issue**

362. The five percent determined above is a maximum value for design because, as discussed above, the design-related IP at issue in this lawsuit is only a small portion of the overall design of a smartphone.

363. The J.D. Power and Associates studies discussed above provide a basis to compare the success of Apple's products relative to the industry. In the March 2011 study, Apple outperformed all other manufacturers in the physical design factor, scoring 36 index points above the industry average as shown in Figure 50 below.<sup>725</sup> Apple also excelled in all five attributes of the physical design, including “Visual appeal of wireless phone,” “Size of display screen,” “Brightness of background display screen lighting,” “Weight of wireless phone,” and “Size of wireless phone,”<sup>726</sup> In particular, in the “Visual appeal of wireless phone” attribute, Apple performed 0.47 points or 6 percent above the industry average of 8.16  $((8.63 - 8.16) / 8.16)$ .<sup>727</sup>

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<sup>723</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '395. [13.9]

<sup>724</sup> 9 Series of Schedules. [1.2]

<sup>725</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '388. [13.9]



<sup>726</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '388. [13.9]

<sup>727</sup> 9 Series of Schedules. [1.2]

Figure 50: Physical Design Attribute Ratings Compared to Average<sup>728</sup>

Physical Design Attribute Ratings Compared to Average								
	Industry Average	Apple	HTC	Palm	Samsung	Motorola	RIM BlackBerry	Nokia
Physical Design Index	795	831	806	782	780	777	763	761
Visual appeal of wireless phone	8.16	8.63	8.28	7.87	7.95	7.89	7.79	7.67
Size of display screen	7.93	8.37	8.16	7.32	7.90	8.24	7.34	7.34
Brightness of background display screen lighting	8.14	8.45	8.27	8.15	7.93	8.09	7.82	7.80
Weight of phone (including battery)	7.73	8.00	7.77	7.95	7.71	7.11	7.62	7.68
Size of wireless phone	7.75	8.01	7.88	7.80	7.47	7.43	7.57	7.55

For handsets used for less than 2 years.

 = Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).  
 = Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).

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364. In the survey asking about reasons for choosing a smartphone, 51 percent of the respondents indicated a reason that they selected Apple was the overall design/style.<sup>729</sup> This is 6 percent higher than the industry average of 45 percent, as shown in Figure 51 below.<sup>730</sup> In relative terms, the respondents valued Apple's overall design/style 13 percent higher than the overall design/style of all smartphone manufacturers on average in their smartphone selection process (6% / 45%).

<sup>728</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '388. [13.9]

<sup>729</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '396. [13.9]

<sup>730</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '396. [13.9]



Figure 51: Selection Process Among Smartphone Manufacturers<sup>731</sup>

### Selection Process Among Smartphone Manufacturers<sup>1,2</sup>

Reasons for Selecting Handset	Industry Avg.	Apple	HTC	Motorola	Nokia	Palm	RIM BlackBerry	Samsung
Liked overall design/style	45%	51%	49%	50%	34%	42%	38%	43%
Internet capable	44%	48%	51%	57%	18%	37%	37%	39%
Touch screen	43%	58%	61%	58%	16%	56%	11%	52%
Ability to use e-mail accounts	36%	40%	39%	50%	14%	28%	33%	28%
Generally easy to use	36%	45%	32%	35%	26%	33%	31%	30%
Wi-Fi capabilities	35%	50%	42%	43%	13%	27%	18%	25%
Quality of phone/best one	35%	49%	36%	33%	23%	18%	25%	23%
Quality of display screen	34%	41%	40%	45%	17%	29%	22%	32%
Digital camera feature	33%	34%	37%	44%	27%	32%	25%	34%
GPS/Location feature	32%	40%	40%	50%	16%	25%	19%	27%
Ease of using Internet features	32%	44%	33%	40%	11%	26%	21%	21%
Ease of using e-mail features	31%	40%	27%	38%	10%	24%	28%	20%

<sup>1</sup> Reasons less than 31% not shown.

<sup>2</sup> Based to all lengths of handset ownership.

365. Based on the above analyses, I conclude that design in total should only be apportioned five percent of Samsung's profits on accused products. What Apple appears to add in value to the design of their products above the average industry participant is only an increase of 6% to 13%. Using an average of 10% better design, this would imply that the value of all the Apple designs to average design value would be 0.5% of profits (5% X 10%).

366. To be conservative, I would apportion 1% of Samsung's profits to possible design elements allegedly taken from Apple.

#### c) Apportionment based on design arounds

367. As I describe below in *Georgia-Pacific* factor 9, I have concluded that Samsung had available to it acceptable, non-infringing alternatives for the trademarks, GUI Design Patents, and trade dress. These available alternatives indicate that the true apportionment to Apple's asserted design-related IP is zero (or at most the expense of the design around discussed in *Georgia-Pacific* factor 9).

<sup>731</sup> J.D. Power: 2011 Wireless Consumer Smartphone Satisfaction Study(SM) Volume I - Management Report, March 2011, SAMNDCA10246338-445 at '396. [13.9]

368. In addition, I note that the trademarks at issue are a small part of the total population of trademarks used on Samsung’s accused products. For example, I or my staff has counted the number of icons in the pictures of several accused products included in the Expert Report of Susan Kare; based on this analysis, it appears that Samsung’s accused products include between 34 and 60 icons.<sup>732</sup>

#### d) Conclusion on Apportionment

369. In my opinion, Apple’s design-related IP should be apportioned at most to be one percent of Samsung’s profits after deductible expenses.

### 5. Samsung’s Unjust Enrichment

370. As discussed above, STA’s and SEA’s profits after deductible expenses are negative (losses), therefore STA and SEA did not have any unjust enrichment related to the sales of the accused products.<sup>733</sup>

371. Applying the maximum apportionment of one percent to Samsung’s profits after deduction expenses results in Samsung’s Unjust Enrichment related to its infringement of the design-related IP calculated as follows:

**Figure 52: STA, SEA, and SEC’s Unjust Enrichment – Different Time Periods<sup>734</sup>**

	STA, SEA and SEC Profit After Deductible Expenses		
	STA, SEA and SEC Profit After Deductible Expenses	Apportionment	Apportioned STA, SEA and SEC Profit After Deductible Expenses
	[a]	[b]	[c]
2010	\$527,639,164	1.0%	\$5,276,392
2011	\$461,912,616	1.0%	\$4,619,126
Total	\$989,551,780	1.0%	\$9,895,518
April 15 - December 31, 2011	\$322,436,018	1.0%	\$3,224,360
June 16 - December 31, 2011	\$124,602,517	1.0%	\$1,246,025

<sup>732</sup> Schedule 17. [1.2]

<sup>733</sup> Schedule 4. [1.2]

<sup>734</sup> Schedule 4. [1.2]

#### **D. Opinions Regarding Reasonable Royalty Rate**

##### **a) Basic Framework for Calculating Reasonable Royalty Damages for Patent Infringement**

372. The determination of damages for patent infringement is defined in Section 284 of U.S. Title 35, which states that "the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." A reasonable royalty is defined as the amount a willing licensor and licensee would bargain for at an arm's length hypothetical negotiation occurring on the date infringement began (e.g. the date of the first sale of the first infringing product).<sup>735</sup> The hypothetical negotiation is based on the assumption that the patented claims at issue are deemed unquestionably valid and enforceable and will be infringed by the products of the licensee absent a negotiated license.<sup>736</sup> Thus, for purposes of my analysis, I assume that the accused products infringe the Patents-in-Suit, and that the Patents-in-Suit are valid and enforceable.

373. There are two factors "central to the reasonable royalty calculation – the royalty base (the product sales which would be subject to the reasonable royalty), and the royalty rate."<sup>737</sup> Once the royalty rate and the royalty base are determined, it is a simple multiplication exercise. In addition, prevailing patentees are entitled to pre-judgment interest, calculations for which I will also include in my analysis of total damages. The award of prejudgment interest should place the patent holder in the same position that it would have enjoyed if the infringer had entered into a license agreement with regular payments.

374. In calculating the appropriate reasonable royalty rate to apply, I first determined the date of the hypothetical negotiation. Then I evaluated what the baseline royalty rate should be, analyzed the factors of *Georgia-Pacific Corp. v. U.S. Plywood Corp.*<sup>738</sup> and the Federal

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<sup>735</sup> *Unisplay, S.A. v. American Electronic Sign Co., Inc.*, 69 F.3d 512, (U.S. Court of Appeals for the Federal Circuit, October 25, 1995), \*517 at p. 5. [12.2]; *see also, Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1324, p. 15. [12.3]

<sup>736</sup> *Procter & Gamble Co. v. Paragon Trade Brands, Inc.*, 989 F. Supp. 547, (U.S. District Court for the District of Delaware, December 30, 1997), \*606, p. 45. [12.4]

<sup>737</sup> *Cornell University v. Hewlett-Packard Company*, Case. No. 01-CV01974, (U.S. District Court for the Northern District of New York, May 27, 2008), \*4, p. 2. [12.5]

<sup>738</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corporation*, 318 F. Supp. 1116, (U.S. District Court of for the Southern District of New York, May 28, 1970), \*1120, p. 4. [12.6]

Circuit's recent *Lucent Technologies, Inc. v. Gateway, Inc., et al.*<sup>739</sup> decision, and then used my professional judgment to arrive at my opinion as to the reasonable royalty damages. A reasonable royalty to be paid for use of the Patents-in-Suit depends on an evaluation of the business, legal and economic factors that would be considered by the parties in a hypothetical negotiation. In addition, the Supreme Court and Federal Circuit have repeatedly recognized that factual developments occurring after the date of the hypothetical negotiation can inform the damages calculation.<sup>740</sup> In calculating a reasonable royalty rate, I considered facts known at the time of the hypothetical negotiation as well as factual developments occurring after the date of the hypothetical negotiation. This is because, for purposes of the hypothetical negotiation, courts may assume that all parties would have known all relevant information. This is also referred to as the "book of wisdom" which I explain in more detail below.<sup>741</sup>

375. A comprehensive list of factors relevant to determining a reasonable royalty in a hypothetical negotiation is set forth in the leading decision of *Georgia-Pacific Corp. v. U.S. Plywood*.<sup>742</sup> In *Georgia-Pacific*, the court identified fifteen factors deemed pertinent to its decision regarding a royalty rate.<sup>743</sup> In performing a hypothetical negotiation analysis, it is important to recognize that some of the *Georgia-Pacific* factors may be of minimal or no relevance to a particular case and other factors may have to be molded by the Court to fit the facts of the case at hand.<sup>744</sup> The *Georgia-Pacific* factors, as well as other factors that I believe bear on the determination of a reasonable royalty in this matter, are discussed below.

376. As part of my analysis, I have also determined the appropriate royalty base. The Federal Circuit ruled that "the base used in a running royalty calculation can always be the value of the entire commercial embodiment, as long as the magnitude of the rate is within an

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<sup>739</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1333, p. 22. [12.3]

<sup>740</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1333, p. 22. [12.3]

<sup>741</sup> See e.g., *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, (Supreme Court of the United States, May 29, 1933), \*698, p. 6. [12.7]; *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, (U.S. Court of Appeals for the Sixth Circuit, April 25, 1978), \*1158, p. 4. [12.1]; *Fromson v. Western Litho Plate and Supply Co., et al.*, 853 F.2d 1568, (U.S. Court of Appeals for the Federal Circuit, August 4, 1988), \*1575, p. 9. [12.8]

<sup>742</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corporation*, 318 F. Supp. 1116, (U.S. District Court for the Southern District of New York, May 28, 1970). [12.6]

<sup>743</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corporation*, 318 F. Supp. 1116, (U.S. District Court for the Southern District of New York, May 28, 1970), \*1120, p. 4. [12.6]

<sup>744</sup> *Procter & Gamble Co. v. Paragon Trade Brands, Inc.*, 989 F. Supp. 547, (U.S. District Court for the District of Delaware, December 30, 1997), \*607, p. 45. [12.4]

acceptable range (as determined by the evidence).<sup>745</sup> In other words, it is always appropriate to use the sales base of the entire device, so long as the value of the invention is weighed in comparison to the other functionalities of the device and the patented feature is a basis for customer demand.<sup>746</sup> The value of the invention is reflected in the royalty rate analysis that I conduct below, in which I have weighed the value of the invention in accordance with the *Georgia-Pacific* factors.

377. If it is determined that the “entire market value rule” applies, the magnitude of the rate I arrive at is an acceptable range based on the documents, testimony and information I have reviewed in connection with my analysis. The royalty rate I have arrived at accounts for the infringing technology as compared to other capabilities.

### **(1) Date of the Hypothetical Negotiation**

378. The date of the hypothetical negotiation is sometime on or before the date of first infringement.<sup>747</sup> In *Applied Medical Resources, Corp. v. U.S. Surgical Corp.*, the Federal Circuit states that “reasonable royalty damages are not calculated in a vacuum without consideration of the infringement being redressed” and that the court must “identify the infringement requiring compensation, and evaluate damages based on a hypothetical negotiation at the time that infringement began, not an earlier one.”<sup>748</sup> For purposes of my analysis, I have assumed that infringement began no later than the date Samsung began selling its accused products, which occurred around June 2010.

### **(2) The Book of Wisdom**

379. In evaluating the business, legal and economic factors that the parties would consider in the hypothetical negotiation, I have relied on facts and documents available as of the date of first infringement. I have also relied on the “Book of Wisdom,” a convention whereby the Court, for purposes of determining patent infringement damages, considers facts and evidence “ex post” the date of the hypothetical negotiation. The seminal Supreme Court

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<sup>745</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1338-39, p. 26. (Fed. Cir. 2009). [12.3]

<sup>746</sup> *Uniloc USA, Inc. et al. v. Microsoft Corporation*, (U.S. Court of Appeals for the Federal Circuit, January 4, 2011). [12.9]

<sup>747</sup> *Unisplay, S.A. v. American Elec. Sign Co., Inc.*, 69 F.3d 512, (U.S. Court of Appeals for the Federal Circuit, October 25, 1995), \*517, p. 5. [12.2]

<sup>748</sup> *Applied Medical Resources, Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, (U.S. Court of Appeals for the Federal Circuit, January 24, 2006), \*1361, p. 4. [12.10]

decision discussing the use of this Book of Wisdom is *Sinclair Refining v. Jenkins Petroleum Process Co.*, in which Justice Cardozo wrote:

At times the only evidence available may be that supplied by testimony of experts as to the state of the art, the character of the improvement, and the probable increase of efficiency or savings of expense. This will generally be the case if the trial follows quickly after the issue of the patent. But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.<sup>749</sup>

380. Justice Cardozo also wrote that use of the Book of Wisdom does not “charge the offender with elements of value non-existent at the time of his offense. It is to bring out and expose to light the elements of value that were there from the beginning.”<sup>750</sup> This precedent is important given that the purpose of the hypothetical negotiation construct is to establish a royalty rate adequate to compensate the Apple for actual use made of the invention by the infringer. Judge Markey in *Panduit v. Stahlin Bros. Fibre Works, Inc.* admonished that reasonable royalties after litigation are not necessarily equivalent to royalty rates that might be negotiated in a purely commercial environment.<sup>751</sup>

381. The Federal Circuit affirmed the use of the Book of Wisdom to adequately compensate the Apple in *Fromson v. Western Litho Plate and Supply Co.*<sup>752</sup> In that case, Fromson was issued the ‘461 patent for lithographic plates in 1965, before the metro newspaper market had been created. However, the following decade there was a surge in demand for Fromson-type plates, largely due to the emergence of the metro newspaper market. The CAFC held that these events were probative in determining a royalty rate at the time of the hypothetical negotiation.<sup>753</sup> *Fromson* has been cited favorably for the use of the Book of Wisdom in many subsequent cases.<sup>754</sup>

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<sup>749</sup> *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, (Supreme Court of the United States, May 29, 1933), \*698, p. 6. [12.7]

<sup>750</sup> *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, (Supreme Court of the United States, May 29, 1933), \*698, p. 6. [12.7]

<sup>751</sup> *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, (U.S. Court of Appeals for the Sixth Circuit, April 25, 1978), \*1158, p. 4. [12.1]

<sup>752</sup> *Fromson v. Western Litho Plate and Supply Co.*, 853 F.2d 1568, (U.S. Court of Appeals for the Federal Circuit, August 4, 1988). [12.8]

<sup>753</sup> *Fromson v. Western Litho Plate and Supply Co.*, 853 F.2d 1568, (U.S. Court of Appeals for the Federal Circuit, August 4, 1988), \*1575, p. 9. [12.8]

<sup>754</sup> See, e.g., *Studiengesellschaft Kohle v. Dart Indus., Inc.*, 862 F.2d 1564, (U.S. Court of Appeals for the Federal Circuit), \*1571-72, pp. 8-9. [12.11]; *Harris Corp. v. Ericsson, Inc.*, 2003 U.S. Dist. LEXIS 12284, (U.S. District Court for the Northern District of Texas, Dallas Division, July 17, 2003). [12.12];

382. In a recent CAFC decision in *Lucent Technologies, Inc. v. Gateway, Inc.*, Microsoft argued that information about how often a certain feature had in fact been used by consumers of Microsoft products was irrelevant because “such facts postdate the time of the hypothetical negotiation.”<sup>755</sup> The CAFC countered, however, that “neither precedent nor economic logic requires us to ignore information about how often a patented invention has been used by infringers. Nor could they since frequency of expected use and predicted value are related.”<sup>756</sup> The CAFC added that “[c]onsideration of evidence of usage after infringement started can, under appropriate circumstances, be helpful to the jury and the court in assessing whether a royalty is reasonable.”<sup>757</sup>

383. In *Honeywell Int'l, Inc., et al. v. Hamilton Sundstrand Corp. (HSC)*, the Delaware District Court was persuaded that the result dictated by *Fromson* was the most sensible in resolving the conflict of HSC's request to preclude Honeywell from presenting a damages calculation based on sales projections of the accused product that did not exist at the time of the hypothetical negotiation.<sup>758</sup> The Court stated that *Fromson* promotes flexibility in damage calculations by not erecting an unnecessarily rigid barrier to relevant post-negotiation information, discourages infringement by placing the risk of success on the infringer, protects the *quid pro quo* underlying patent law by preventing a premature valuation of the patent, and permits a damage award more in keeping with the plain language of Section 284 by adequately compensating the plaintiff for the use made of the invention by the defendant.<sup>759</sup>

384. District courts have also upheld the use of the Book of Wisdom. In *Ariba, Inc. v. Emptoris, Inc.*, the court determined that the “jury may consider the infringer's actual sales and revenue up to the date of trial as part of the ‘book of wisdom.’”<sup>760</sup> In a non-exhaustive list, the court stated that other admissible post-infringement evidence included the “importance of the

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*Cadillac Prods. v. TriEnda Corp.*, (U.S. District for the Eastern District of Michigan, Southern Division, August 2, 2000). [12.13]; *Wright v. United States*, 53 Fed. Cl. 466, (U.S. Court of Federal Claims, August 28, 2002), \*469-70, pp. 5-7. [12.14]; *ResqNet.com, Inc. v. Lansa, Inc.* 594 F.3d 860, (U.S. Court of Appeals for the Federal Circuit, February 5, 2010), \*872, p. 20. [12.15]

<sup>755</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1333, p. 22. [12.3]

<sup>756</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1333, p. 22. [12.3]

<sup>757</sup> *Lucent Technologies, Inc. et al. v. Gateway, Inc. et al.*, 580 F.3d 1301, (U.S. Court of Appeals for the Federal Circuit, September 11, 2009), \*1333-1334, p. 22. [12.3]

<sup>758</sup> *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 378 F.Supp. 2d 459, (U.S. District Court for the District of Delaware, July 5, 2005), \*469, p. 8. [12.16]

<sup>759</sup> *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 378 F.Supp. 2d 459, (U.S. District Court for the District of Delaware, July 5, 2005), \*469, p. 8. [12.16]

<sup>760</sup> *Ariba, Inc. v. Emptoris, Inc.*, 567 F. Supp. 2d 914, (U.S. District Court for the Eastern District of Texas, Lufkin Division, July 29, 2008), \*917, p. 3. [12.17]

technology, the development of products for convoyed sales, and the relative market position of the parties.”<sup>761</sup>

385. Accordingly, for purposes of determining the reasonable royalty adequate to compensate Apple for Samsung’s use of the Patents-in-Suit, I have considered facts and evidence that may not have been known as of the date of the hypothetical negotiation.

386. My interpretation of the Book of Wisdom has been subject to judicial scrutiny in the *St. Clair Intellectual Property Consultants, Inc. v. Canon, Inc.* matter. Judge Farnan concluded in a Memorandum Opinion that my methodology is consistent with settled law in the “Book of Wisdom” methodology and, therefore, satisfies the requirements of Rule 702.<sup>762</sup>

### (3) Baseline Royalty Rate

387. As a starting point for my analysis of the reasonable royalty rate, I have determined a “Baseline Royalty Rate,” which, as I explain in more detail below. I then analyze qualitative factors to determine what adjustments, if any, to the Baseline Royalty Rate are necessary to ensure that the resulting royalty rate adequately compensates the plaintiff for the actual use made of the inventions by the infringer.

388. As I stated above, a list of factors relevant to determining a reasonable royalty in a hypothetical negotiation is set forth in the leading decision of *Georgia-Pacific Corp. v. U.S. Plywood*.<sup>763</sup> In *Georgia-Pacific*, the federal court identified fifteen factors deemed pertinent to its decision regarding a royalty rate.<sup>764</sup> Consideration of these and other relevant factors can result in the reasonable royalty rate being greater than or less than the Baseline Royalty Rate.

389. When evaluating whether an adjustment to the Baseline Royalty Rate is necessary, it is important to bear in mind that the characteristic pertaining to each *Georgia-Pacific* factor (e.g., term of the license) is considered *relative to* the characteristic as embodied in the license upon which the Baseline Royalty Rate is based. This construct is analogous to adjusting the estimated value of a parcel of real estate based on the differing characteristics of a

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<sup>761</sup> *Ariba, Inc. v. Emptoris, Inc.*, 567 F. Supp. 2d 914, (U.S. District Court for the Eastern District of Texas, Lufkin Division, July 29, 2008), \*918, p. 3. [12.17]

<sup>762</sup> *St. Clair Intellectual Property Consultants, Inc. v. Canon, Inc. et al*, (U.S. District Court for the District of Delaware, September 28, 2004), \*5, p. 3. [12.18]

<sup>763</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corporation*, 318 F. Supp. 1116, (U.S. District Court for the Southern District of New York, May 28, 1970). [12.6]

<sup>764</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corporation*, 318 F. Supp. 1116, (U.S. District Court for the Southern District of New York, May 28, 1970), \*1120, p. 4. [12.6]



comparable, recently-sold parcel. To the extent that both properties are identical with respect to a given characteristic (e.g., square footage), no adjustment to the estimated value is necessary. Conversely, to the extent that the properties differ with respect to a given characteristic (e.g., more desirable location), an adjustment to the estimated value may be warranted.

390. My baseline royalties are based on the next best alternative besides practicing the asserted claims of the patents-in-suit to Samsung. A detailed description of the next best non-infringing alternatives is detailed in my discussion of *Georgia-Pacific* factor #9 below. A summary Table of my starting point rates shows the baseline rates as:

<u>Design Around Costs</u>	
<u>Utility Patents</u>	
'002	\$9,240
'163	\$5,880
'381	\$11,340
'891	\$8,820
'915	\$10,080
'607	\$1,600,000
'129	\$1,600,000
Cost to Design a New Icon (per Icon)	\$420
Cost to Design and Implement a New GUI	\$1,152
Trade Dress (Based on New GUI)	\$1,152
Trade Dress (Device Related)	\$0
Electronic Device Design Patents	\$0

**b) *Georgia-Pacific* Factor Analysis**

**(1) Factor #1—the royalties received by the patentee for the licensing of the Patents-in-suit, proving or tending to prove an established royalty**

391. The purpose of Factor #1 is to determine (1) whether there exists an *established* royalty for the Patents-in-Suit and, (2) absent such an *established* royalty, whether any offers to license or actual royalties received from licensing the patents-in-suit are probative regarding the determination of a reasonable royalty.

392. I have received several agreements from Apple in which Apple is a licensee of technology. A list of these agreements and their respective royalties can be found at Tab 1.3 of my report.

*(a) Implications Regarding an Established Royalty for the Patents-in-Suit*

393. None of the transactions or licenses pertaining to the Patents-in-Suit proves an established royalty.

*(b) Absent an Established Royalty, are the Transactions and Licenses for the Patents-in-suit Probative of a Reasonable Royalty?*

394. Although none of the transactions or licenses pertaining to the Patents-in-Suit proves an established royalty, some of the transactions have implications relevant to the determination of a reasonable royalty.

**(i)**

395.

[REDACTED]

396.

[REDACTED]

765 [REDACTED] APLNDC0000043050-068 at '051-'052.  
[12.26]

766 [REDACTED] APLNDC0000043050-068 at '052. [12.26]  
767 [REDACTED] APLNDC0000043050-068 at '052. [12.26]  
768 [REDACTED] APLNDC0000043050-068 at '052. [12.26]

769 Deposition of John G. Elias, Ph.D., October 13, 2011, pp. 86-87. [12.27]

770 Deposition of John G. Elias, Ph.D., October 13, 2011, pp. 85-87. [12.27]

[REDACTED]

397. [REDACTED]

[REDACTED]

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771 [REDACTED] APLNDC-X0000004562-907 at '620-'621, pp.  
292-294. [12.28]

772 [REDACTED] APLNDC-X0000004562-907 at '627-'628, pp.  
322-323. [12.28]

773 [REDACTED] APLNDC-X0000004973-5041 at '4973.  
[12.29]

774 [REDACTED] APLNDC-X0000004973-5041 at '4978.  
[12.29]

775 [REDACTED] APLNDC-X0000004973-5041 at '4984.  
[12.29]

[REDACTED]

398. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

399. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

400. [REDACTED]  
[REDACTED]  
[REDACTED]

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776 [REDACTED] APLNDC-X0000004973-5041 at '4985.  
[12.29]

777 [REDACTED] APLNDC-X0000004973-5041 at '4978.  
[12.29]

778 [REDACTED] APLNDC-X0000004973-5041 at '5014.  
[12.29]

779 [REDACTED] APLNDC-X0000004973-5041 at '4980.  
[12.29]

780 [REDACTED] PLNDC-X0000004973-5041 at '4980.  
[12.29]

781 [REDACTED] APLNDC-X0000004973-5041 at '4980.  
[12.29]

782 U.S. Patent Number 7,663,607. [2.7]

783 U.S. Patent Number 7,920,129 B2. [2.9]

401.

**Figure 53:**

Original Assignee	No. of Patents	Original Assignee	No. of Patents
Apple Inc.	108	Apple Computer, Inc.	1
Cypress Semiconductor Corporation	36	Autodesk, Inc.	1
Synaptics Incorporated	15	Avago Technologies ECBU IP (Singapore) Pte. Ltd.	1
Smart Technologies ULC	14	Cirque Corporation	1
Silverbrook Research PTY LTD	13	Cypress Semiconductor Corporation	1
Exbiblio B.V.	10	David H. Chin	1
Immersion Corporation	10	Exbiblio B. V.	1
NA	8	Exbibuo B.V.	1
AuthenTec, Inc.	6	Gilbarco Inc.	1
Microsoft Corporation	6	Kabushiki Kaisha Toshiba	1
Google Inc.	4	Kulite Semiconductor Products, Inc.	1
QSI Corporation	4	Kyocera Mita Corporation	1
Atrua Technologies, Inc.	3	Next Holdings Limited	1
International Business Machines Corporation	3	Perceptive Pixel Inc.	1
Seiko Epson Corporation	3	Promethean Limited	1
Smart Technologies, Inc.	3	Ricoh Company, Ltd.	1
Elan Microelectronics Corporation	2	Shoot the Moon Products II, LLC	1
Exbiblio, B.V.	2	Siemens Aktiengesellschaft; Siemens Technology -to-Business Center LLC	1
Finger Works, Inc.	2	Siemens Technology-To-Business Center, LLC	1
Keybowl, Inc.	2	Silverbrook Research Pty Ltd.	1
New York University	2	Tactile Displays, LLC	1
Smart Technologies Inc.	2	Varatouch Technology Incorporated	1
Synaptics, Inc.	2	Varian Medical Systems Technologies, Inc.	1
Adrea, LLC	1	Xerox Corporation	1

<sup>784</sup> U.S. Patent Number 7,663,607. [2.7]

<sup>785</sup> Patent US6323846, Google Patents, <<http://www.google.com/patents/US6323846>>. [12.31]

402. [REDACTED]

Figure 54: [REDACTED]

Original Assignee	No. of Patents
Apple Inc.	24
NA	3
GestureTek, Inc.	3
Masco Corporation of Indiana	3
QSI Corporation	2
Precision Dynamics Corporation	1
Elan Microelectronics Corporation	1
Royal College of Art	1
Cirque Corporation	1
David H. Chin	1
WMS Gaming Inc.	1
Brose Fahrzeugteile GmbH & Co. Kommanditgesellschaft	1
Microsoft Corporation	1
N-trig Ltd.	1
Vimicro Corporation; Wuxi Vimicro Corporation	1
Tiki'Labs	1
QUALCOMM Incorporated	1

403. [REDACTED]

<sup>786</sup> Patent US20020015024, Google Patents, <<http://www.google.com/patents?id=D4SNAAAAEBAJ&printsec=frontcover&dq=US2002/0015024&hl=en&sa=X&ei=L6uDT5zTHYmQiQKjx8mEBg&ved=0CDQQ6AEwAA>>. [12.32]

<sup>787</sup> [REDACTED] APLNDC-X0000004973-5041 at '5012.  
[12.29]

[REDACTED]

(c) *Implications of this Georgia-Pacific Factor Regarding a Reasonable Royalty*

404. I do not have enough information to use this factor to determine the value of the patents-in-suit. However, [REDACTED] should be considered as a reasonableness check [REDACTED]

**(2) Factor #2—the rates paid by the licensee for the use of other patents comparable to the Patents-in-Suit.**

(a) *Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

405. I do not consider these agreements to be probative. Therefore, this factor is neutral in my determination of the reasonable royalty amount.

**(3) Factor #3—the nature and scope of the license, as exclusive or nonexclusive, or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.**

406. The license contemplated in the hypothetical negotiation would be a non-exclusive license for a portfolio of patents only and would not include any transfer of technology or know-how. Technology transfer agreements, including many of Samsung's and Apple's license agreements discussed above, frequently transfer along with patent rights items such as know-how, technical drawings, specifications, trademarks, and copyrights.

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788 [REDACTED] APLNDC-X0000004973-5041 at '4998.

789 [REDACTED] APLNDC-X0000004973-5041 at '4998.

*(a) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

407. Therefore, this factor would be neutral in relation to the royalty amount as suggested by a non-infringing alternative.

**(4) Factor #4—the licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.**

408. It is my understanding that Apple has not licensed the Patents-in-Suit. Apple values the profits it has as an opportunity to earn by distributing and manufacturing its products more than it values the royalty it could earn by licensing to a competitor.

*(a) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

409. This factor would indicate that Apple would not be willing to share any of the costs of the next best alternative to Samsung and indicate that the full amount of these costs would be paid.

**(5) Factor #5—the commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.**

410. When licensing a direct competitor, a licensor may demand a relatively high royalty rate to compensate it for the sales and profits it will potentially lose to the competitor. In his report, Mr. Musika suggested that “Apple and Samsung directly and aggressively compete in both the smartphone and tablet markets.”<sup>790</sup> However, while Apple and Samsung are competitors in the sense that each sells both smartphones and tablets, among other things, there are two important considerations with respect to this topic.

411. First, as discussed in Section IV.A.4.d), competition between Apple and Samsung is confounded by the competition between iOS, Apple's mobile operating system, and Android, Google's mobile operating system used on devices made by a multitude of manufacturers including Samsung. Because consumers often consider the operating system an important selling point, the more fierce competition is not between Apple and Samsung, but iOS

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<sup>790</sup> Musika Report, p. 71. [2.2]



and Android. Once a consumer has decided to opt for Android instead of iOS, then Android devices must compete against each other for that incremental purchase. Samsung, whose smartphones and tablets run Android, competes more heavily with those manufacturers of other Android devices.

412. In addition, [REDACTED]

[REDACTED]

413. Notably, [REDACTED]

[REDACTED]

*(a) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

414. While Apple and Samsung do generally compete in the smartphone and tablet markets, the considerations described above mitigate the competitive climate. However, in my opinion this factor would indicate that Apple would not be willing to share any of the costs of the next best alternative to Samsung and indicate that the full amount of these costs would be paid.

<sup>791</sup> [REDACTED]  
APLND00010809-809.54 at '809.9. [8.11]

<sup>792</sup> [REDACTED]  
APLND00010809-809.54 at '809.9. [8.11]

<sup>793</sup> Musika Report, Exhibit 32. [2.2]

<sup>794</sup> Musika Report, Exhibit 33. [2.2]

<sup>795</sup> Musika Report, Exhibit 37. [2.2]

<sup>796</sup> Musika Report, Exhibit 38. [2.2]

<sup>797</sup> [REDACTED]  
APLND00010809-809.54 at '809.9. [8.11]

**(6) Factor #6—the effect of selling the patented specialty in promoting sales of other products of the licensee, the existing value of the invention to the licensor as a generator of sales of his non-patented items and the extent of such derivative or convoyed sales.**

415. There are two key issues with respect to *Georgia-Pacific* factor #6: (1) to what extent did the infringer anticipate collateral or convoyed sales as a result of selling the patented item and what effect such anticipation would have had on the parties' respective bargaining positions at the hypothetical negotiation, and (2) whether such convoyed sales are appropriately included in the royalty base.

416. It is important to note that, in this case, only if the allegedly infringed IP is the driver of smartphone and tablet sales can the sale of an accessory, or related item, be claimed as a convoyed sale. In essence, the patents, trade dress, and trademarks at issue would have to be a significant basis of demand for Apple's or Samsung's smartphones and tablets for any additional sales to be considered in inclusion of convoyed sales. As shown throughout this report, the IP at issue is clearly not a significant driver of demand. Thus any sales that could be considered convoyed due to the sale of a smartphone or tablet as a whole, cannot be considered convoyed by the specific IP at issue.

417. As Mr. Musika notes, both Apple and Samsung recognize the value of accessory sales. However, it is not those sales, or loss of those sales, directly that the companies value. Rather, the importance of accessory purchases lies in their effect on future sales of the patented specialties, namely smartphones and tablets. The Samsung document that Mr. Musika cites in his report as evidence of convoyed sales is rather evidence of the important role accessories play in future purchases of Samsung's smartphones and tablets. In fact, the section of that report that Mr. Musika cites is titled "Accessory Brand Stickiness," indicating the ability of accessories to keep customers coming back to Apple or Samsung for future purchases.<sup>798</sup>

418. Whether or not Samsung "referenced the increase in Apple brand loyalty due to the use of iPhone, iPhone 3G and [] iPhone 3GS accessories,"<sup>799</sup> this is simply a statement of the value of accessories and plays no part in determining whether these accessories fall under the definition of convoyed sales. The same is true of other statements made by Mr. Musika in his analysis of convoyed sales, like "'accessories enhance user experience' by facilitating the

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<sup>798</sup> 2011 Smartphone Portfolio Strategy, May 2010, SAMNDCA00530591-672 at '611. [13.1]

<sup>799</sup> Expert Report of Terry L. Musika, CPA, March 22, 2012, p. 74. [2.2]

use of the devices and accessories in the home, in the car, as entertainment and through increasing productivity,” or “the use of iPhone accessories was a ‘compelling reason for consumer[s] to stay with their current brand.’”<sup>800</sup> Each of these statements is a judgment of the value of the accessories themselves; they are not evidence that accessory sales are conveyed as a result of the specific features enabled by the intellectual property at issue in this case.

419. Further, Mr. Musika tries to pass arguments aimed at showing the importance of Apple’s ecosystem as arguments that militate in favor of an increased royalty rate due to conveyed sales.<sup>801</sup> The value of Apple’s ecosystem is not a valid argument for the inclusion of conveyed sales in the reasonable royalty calculation.

420. From Samsung’s perspective, as shown by Mr. Musika’s citations, the value of accessories lies in the power to drive future sales and brand loyalty. In fact, from Samsung’s point of view, the company would not likely have continued the sale of accessories if they did not create such value; Samsung’s sale of accessories in the U.S. has run an operating loss in every quarter from Q1 2010 through Q4 2011.<sup>802</sup>

*(a) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

421. Both Apple and Samsung do make accessory sales that stem from the sales of their respective smartphones and tablets. However, Mr. Musika’s discussion confuses the actual benefits of accessories (i.e., brand stickiness) with conveyed accessory sales, the relevant factor in this case. For the reasons above, Mr. Musika’s assertion that this Georgia Pacific factor “supports a higher reasonable royalty rate ...”<sup>803</sup> is not correct; this factor is, in effect, neutral.

**(7) Factor #7—the duration of the patent and the term of the license.**

*(a) Duration of the patent*

422. The following table summarizes the Patents’ filing, issue and expiration dates:

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<sup>800</sup> Musika Report, p. 74. [2.2]

<sup>801</sup> Musika Report, pp. 74-76. [2.2]

<sup>802</sup> Exhibit 2621 to Sheppard Deposition, Accessories (USA), SAMNDCA00373532-534. [13.2] Note that Mr. Sheppard explained that the accessories profit and loss data was not limited to accessories sold only on the accused products. Deposition of Timothy Sheppard, March 30, 2012, p.124. [13.3]

<sup>803</sup> Musika Report, p. 76. [2.2]

**Figure 55: Patent Filing, Issue and Expiration Dates**

Patent	Filing Date	Issue Date	Expiration Date <sup>804</sup>
'002	3/20/1997	12/10/2002	9/29/2014
'381	12/14/2007	12/23/2008	12/13/2027
'915	1/7/2007	11/30/2010	6/27/2028
'891	2/1/2008	12/14/2010	3/13/2023
'607	5/6/2004	2/16/2010	5/29/2026
'163	9/4/2007	1/4/2011	7/22/2029
'129	1/3/2007	4/5/2011	1/22/2030
'D790	8/20/2007	11/23/2010	11/22/2024
'D334	7/15/2008	6/8/2010	6/7/2024
'D305	6/23/2007	11/17/2009	11/16/2023
'D087	7/30/2007	5/26/2009	5/25/2023
'D677	11/18/2008	6/29/2010	6/28/2024
'D270	10/1/2009	8/24/2010	8/23/2024
'D889	3/17/2004	5/10/2005	5/9/2019

*(b) Term of the license*

Factor # Factor 7 embodies the conventional wisdom that the longer the remaining duration of a patent term, the more willing a hypothetical licensee is to pay a higher royalty rate. This principle rests on the fact that the longer the duration of the patent, the more likely the patent holder is to cultivate goodwill, an intangible economic asset representing the ability of a business to generate income due to business reputation, market position, management, technology, customer relations, and other elusive indicia of earning power, which would almost certainly persist and benefit the patent holder long after the patent expired.<sup>805</sup>

423. Apple is seeking an injunction in this case. The hypothetical license term is from the date of first infringement through the date of judgment, a period of a little over two years.<sup>806</sup> If Apple seeks royalties post judgment, there will be a new hypothetical negotiation because damages for past infringement are separate and distinct from damages for future acts of infringement and may require different royalty rates given the change in the parties' legal relationship, among other factors.<sup>807</sup>

<sup>804</sup> Expiration dates based on discussion with counsel.

<sup>805</sup> *Brunswick v. United States*, 36 Fed. Cl. 204, (U.S. Court of Federal Claims, July 30, 1996), \*214, p. 7. [12.20]

<sup>806</sup> The accused products were first sold in June 2010. (21 Series of Schedules. [1.2])

<sup>807</sup> *Paice LLC v. Toyota Motor Company*, 504 F.3d 1293, (U.S. Court of Appeals for the Federal Circuit, October 18, 2007), \*1317, p. 17. [12.21]

(c) *Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

424. The duration of the patents and the terms of the hypothetical license agreements are sufficiently long in relation to the normal product lifecycle in this industry that this factor would be neutral in my determination of the reasonable royalty amount.

**(8) Factor #8—the established profitability of the product made under the patent, its commercial success and its current popularity.**

(a) *Established Profitability*

425. For purposes of determining a reasonable royalty, the most relevant profitability data are the infringer's operating profit projections prepared around the date of the hypothetical negotiation.<sup>808</sup> Absent such financial projections, the infringer's *ex post* actual operating profit margins, as well as industry operating profit margin data, can be considered.<sup>809</sup>

426. To date, no detailed profit projections as of the date of the hypothetical negotiation have been produced. I have calculated Samsung's profits related to the accused products in my analysis of Samsung's profits related to the design-related IP

(b) *.Commercial Success and Current Popularity*

427. [REDACTED]

<sup>808</sup> *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075 (U.S. Court of Appeals for the Federal Circuit, October 6, 1983), \*1081, pp. 6-7. ("The issue of the infringer's profit is to be determined not on the basis of a hindsight evaluation of what actually happened, but on the basis of what the parties to the hypothetical license negotiations would have considered at the time of the negotiations. 'Whether, as events unfurled thereafter, [the infringer] would have made an actual profit while paying the royalty determined as of [the date infringement began], is irrelevant.'") (quoting *Panduit*, 575 F.2d, \*1164, pp. 6-7). [12.22]

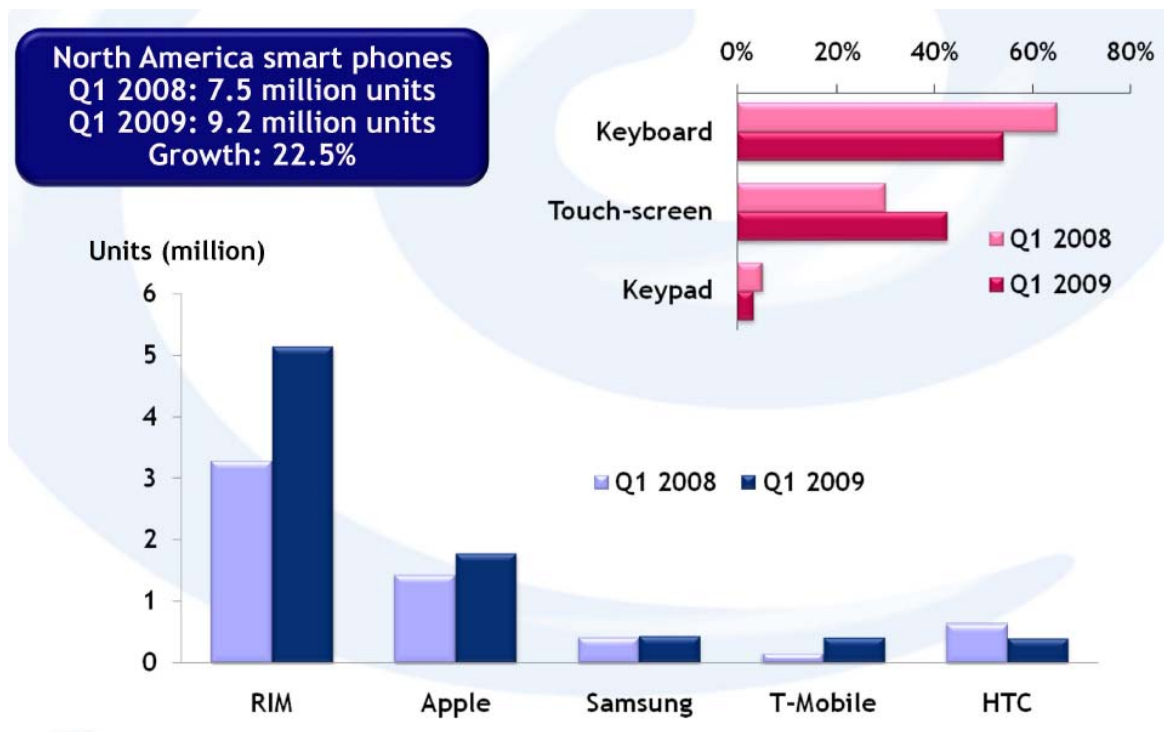
<sup>809</sup> John M. Skenyon, "Proving Patent Damages to a Jury" (absent projections by the infringer, the infringer's actual profits may be used for calculating reasonable royalty damages under the book of wisdom view) [12.23]; *Panduit*, 575 F.2d 1152, \*1164, p. 9 ("The licensee-profit element is but one of the measures applicable . . . , and should be based on the customary profit allowed licensees in the industry at that time."). [12.1]

<sup>810</sup> [REDACTED] APLNDC00005708-708.11 at '708.8.  
[10.9]

[REDACTED]

428. According to a Canalsys report entitled “Worldwide Smart Phones Q1 2009,” worldwide smartphone market continued to grow in 2009 and shipments of smartphones with touch-screens almost doubled in Q1 2009 compared with a year ago.”<sup>814</sup>

**Figure 56: North America Smartphone Shipments, Q1 2008 and Q1 2009**<sup>815</sup>



<sup>811</sup> [REDACTED] APLNDC00005708-708.11 at '708.8.  
[10.9]

<sup>812</sup> [REDACTED] APLNDC00005708-708.11 at '708.2.  
[10.9]

<sup>813</sup> [REDACTED] APLNDC00005708-708.11 at '708.2.  
[10.9]

<sup>814</sup> Worldwide Smart Phones Q1 2009, Quarterly Market Overview, Canalsys Expert Analysis for the High-Tech Industry, SAMNDCA00201336-350 at '337. [10.10]

<sup>815</sup> Worldwide Smart Phones Q1 2009, Quarterly Market Overview, Canalsys Expert Analysis for the High-Tech Industry, SAMNDCA00201336-350 at '343. [10.10]

429. More than 15 million of the 39.1 million phones sold during Q2 2009 used a touch screen as the primary interface, significantly more than a year ago, when only 3.9 million of the 33.6 million mobile phones sold in Q2 2008 had a touch screen.<sup>816</sup>

430. US Smartphone sales increased 12.7 percent in 2009 and reached 36.4 million units, as stated in a September 6, 2009 Samsung report entitled "Design for Smartphone US."<sup>817</sup> Smartphones accounted to nearly one in eight of all phones sold, valued at \$12 billion in 2009 and were predicted to hit \$25 billion in 2014.<sup>818</sup> [REDACTED]

[REDACTED] IDC projected that 20 percent of the 1.4 billion phone sold in 2013 would be smartphones.<sup>821</sup> UBS Investment Research analysts forecast the global handset market to grow at a rate of 6.2 percent during 2010-2015, from 1.4 billion to 1.9 billion units.<sup>822</sup> Key growth drivers in the handset market include emerging markets, driven by increased handset penetration, transition to 3G from 2/2.5G, and increased consumer adoption of smartphones.<sup>823</sup> UBS analysts explain that increased demand for data on wireless mobile devices has been driving the transition to 3G technologies from 2/2.5G technologies.<sup>824</sup> According to UBS Investment Research, 3G-based devices will have a growth rate of 23 percent during 2010-15 (from 507 million to 1.4 billion units), as opposed to the overall handset market at six percent.<sup>825</sup>

<sup>816</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at '428. [8.4]

<sup>817</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at '421. [8.4]

<sup>818</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at '421. [8.4]

<sup>819</sup> [REDACTED] APLNDC-Y0000148505-555 at '512. [4.12]

<sup>820</sup> [REDACTED] APLNDC-Y0000148505-555 at '512. [4.12]

<sup>821</sup> Design for Smartphone UX, Samsung Design America (SDA), September 6, 2009, SAMNDCA00204410-494 at '421. [8.4]

<sup>822</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '511. [10.11]

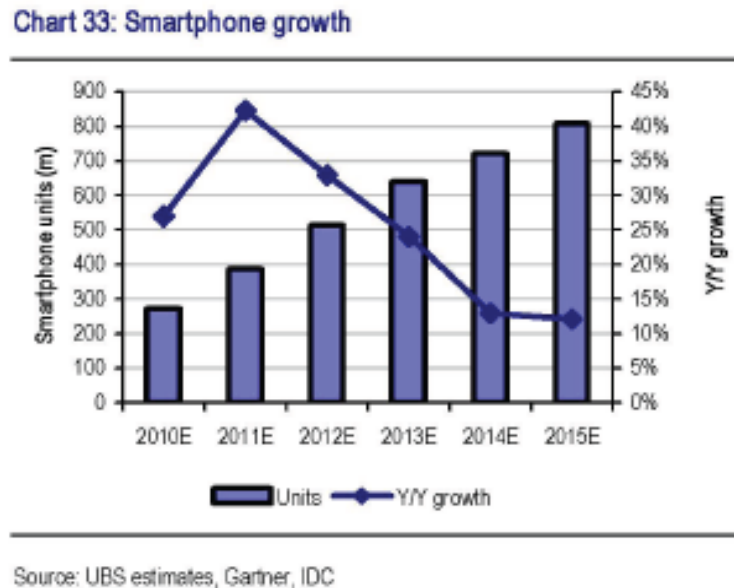
<sup>823</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '511-512. [10.11]

<sup>824</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '512. [10.11]

<sup>825</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '512. [10.11]

431. UBS Investment Research analysts also forecast smartphones to grow at a compounded annual rate of 25 percent during 2010-15, from 272 million (19 percent of handset units) to 808 million (42 percent of total handset units).<sup>826</sup> UBS Investment Research states that “[w]ith a rich and friendly user interface, high speed wireless connectivity using 3G (or higher), and availability of multimedia content, smartphones have become the platform of choice for consumers for content consumption and connectivity.”<sup>827</sup>

**Figure 57: Smartphone Growth, 2010E – 2015E**<sup>828</sup>



432. According to Samsung, US Tablet shipments are predicted to grow at 73 percent over next several years, reaching 41.4 million units in 2013.<sup>829</sup>

<sup>826</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '513. [10.11]

<sup>827</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '513. [10.11]

<sup>828</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '514. [10.11]

<sup>829</sup> Samsung Galaxy Tab, Samsung Electronics, SAMNDCA00027474-514 at '481. [10.12]



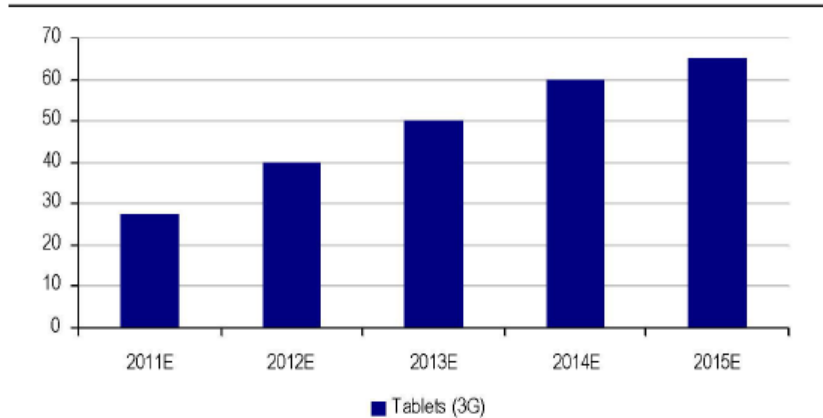
**Figure 58: US Tablet Market Size / Growth<sup>830</sup>**



433. UBS Investment Research analysts also expect the wireless WAN (3/4G) tablet market to have a growth rate of 24 percent during 2010-15, from 28 million to 65 million.<sup>831</sup>

**Figure 59: Tablet (Wireless WAN enabled) Market Forecast, 2011E – 2015E<sup>832</sup>**

**Chart 44: Tablet (Wireless WAN enabled) market forecast**



Source: UBS estimates

<sup>830</sup> Samsung Galaxy Tab, Samsung Electronics, SAMNDCA00027474-514 at '481. [10.12]

<sup>831</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '517. [10.11]

<sup>832</sup> Best Smartphone and Tablet Play in Semis; Assuming Coverage with Buy Rating, \$65 PT, UBS Investment Research, March 29, 2011, SAMNDCA00224483-546 at '517. [10.11]

(c) *Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

434. This factor would be neutral in relation to my baseline royalty amounts of a non-infringing alternative.

**(9) Factor #9—the utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results**

(a) *Utility and Advantages of the Utility Patents and Samsung's Available Design Arounds*

**(i) User Interface Utility Patents**

(a) *U.S. Patent No. 6,493,002*

435. Based on my discussion with Trevor Darrell,<sup>833</sup> I understand that the '002 patent is directed to a "control strip" or "control window" "implemented in a window layer that appears on top of application programming windows that may be generated." According to Apple's expert, this patent covers either (i) the status bar or (ii) the "quick panel" or "notification panel" that slides down from the top by swiping downward (or both).

436. Based on discussions with Trevor Darrell and Samsung engineers,<sup>834</sup> I understand that there are numerous other applications (such as the music player, e-mail, camera feature, a game, etc.) that could be made to generate a window that partly obscures the notification window and / or the status bar.

437. Mr. Park indicated that the application that Samsung would choose to generate a window that would partially obscure the notification window and / or the status bar is the music player.<sup>835</sup>

438. Samsung engineers have estimated that the design around could have been completed in a total of three weeks and four days if Samsung would have known that it may

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<sup>833</sup> Conversation with Trevor Darrell, April 11, 2012.

<sup>834</sup> Conversation with Trevor Darrell, April 11, 2012. Conversations with Jaewoo Park, April 12, 2012 and April 15, 2010 (with translation assistance from Hoshin Lee).

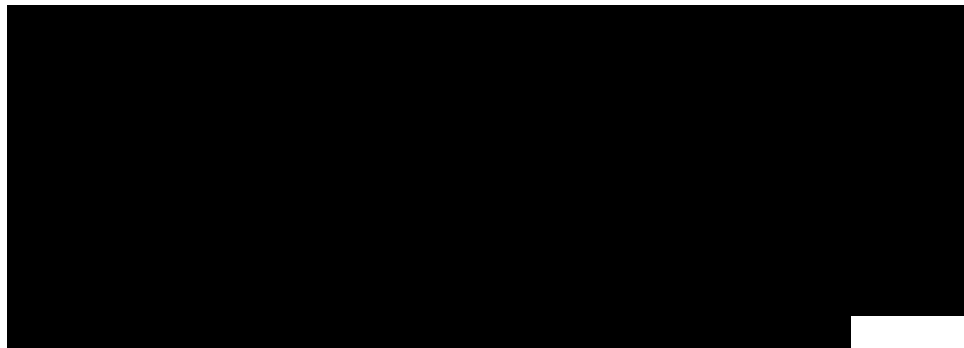
<sup>835</sup> Conversations with Jaewoo Park, April 12, 2012 and April 15, 2010 (with translation assistance from Hoshin Lee).

have been out of the market without the design around.<sup>836</sup> Based on design around hours provided by the Samsung engineers and wage data provided by Samsung HR,<sup>837</sup> the total cost of the design around is \$8,820.<sup>838</sup>

(b) U.S. Patent No. 7,469,381

439. Based on my discussions with Dr. Andries Van Dam and Dr. Jeff Johnson,<sup>839</sup> I understand that the ‘381 Patent covers the “bounceback” feature that indicates to the user when he or she has reached the edge of an electronic document when translating the document on a touch screen display. According to the claimed method in the ‘381 Patent, when a user translates an electronic document beyond the edge, an area beyond the edge of the electronic document is displayed and when the user removes his or her finger from the display, the document “bounces back” so that the area beyond the edge of the document is no longer displayed.

440. I have also reviewed the description of the ‘381 Patent in the expert report for Apple’s infringement expert on the ‘381 Patent, Dr. Karan Singh. Dr. Singh describes the ‘381 Patent as follows.<sup>840</sup>



441. Based on discussions with Jeff Johnson and Samsung engineers,<sup>841</sup> Samsung has already implemented a design-around that uses a different method to indicate to the user

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<sup>836</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>837</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee). Conversation with Jong-wook Shim, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>838</sup> Schedule 13.4. [1.2]

<sup>839</sup> Conversation with Andries Van Dam, April 11, 2012. Conversation with Dr. Jeff Johnson, April 16, 2012.

<sup>840</sup> Expert Report of Ravin Balakrishnan, Ph.D. Regarding Infringement of U.S. Patent No. 7,469,381, March 22, 2012, pp. 11-12. [13.14]

when he or she has reached the edge of a document. A blue or orange “glow” will appear at the edge of the document when the user attempts to pan beyond the edge of the document. No area beyond the edge of the document is displayed – the document simply stops when it reaches the edge, and the “glow” appears.

442. According to Jeff Johnson,<sup>842</sup> many other design arounds are possible. For example, the document could tilt, the intensity of the light on the screen could change, or the device could vibrate when an edge of the document is reached.

443. Samsung engineers have estimated that the design around could have been completed in a total of four weeks and three days if Samsung would have known that it may have been out of the market without the design around.<sup>843</sup> Based on design around hours provided by the Samsung engineers and wage data provided by Samsung HR,<sup>844</sup> the total cost of the design around is \$11,340.<sup>845</sup>

(c) *U.S. Patent No. 7,853,891*

444. Based on my discussion with Trevor Darrell,<sup>846</sup> the ‘891 patent covers windows that appear on user input and close automatically. Apple targets the volume window that appears when the volume on a Samsung accused device is changed. One type of claim in the patent is limited only to windows that do not close in response to user input. Another type of claim describes windows that may close in response to user input as well as automatically, but the windows must be translucent. Both types have a limitation that the window must appear at a location independent of a cursor.

445. I have also reviewed the description of the ‘891 Patent in the expert report for Apple’s infringement expert on the ‘891 Patent, Dr. Karan Singh. Dr. Singh describes the ‘891 Patent as follows:<sup>847</sup>

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<sup>841</sup> Conversation with Andries Van Dam, April 11, 2012. Conversation with Jaewoo Park, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>842</sup> Conversation with Jeff Johnson, April 16, 2012.

<sup>843</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>844</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee). Conversation with Jong-wook Shim, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>845</sup> Schedule 13.1. [1.2]

<sup>846</sup> Conversation with Trevor Darrell, April 11, 2012.

<sup>847</sup> Expert Report of Karan Singh, Ph.D. Regarding Infringement of U.S. Patents Nos. 7,864,163, 7,844,915 and 7,853,891, March 22, 2012, p. 123. [13.15]



446. Based on discussions with Trevor Darrell and Samsung engineers,<sup>848</sup> Samsung has already implemented two design arounds that design around all asserted claims of the ‘891 Patent. First, the accused ringer volume window disappears on user input. The volume window in Samsung’s phones now closes if it is touched. Second, the ringer volume window is no longer transparent. This design around has been implemented in new smartphones sold, and is also distributed via a software update.

447. Samsung engineers have estimated that the design around could have been completed in a total of three weeks and three days if Samsung would have known that it may have been out of the market without the design around.<sup>849</sup> Based on design around hours provided by the Samsung engineers and wage data provided by Samsung HR,<sup>850</sup> the total cost of the design around is \$8,820.<sup>851</sup>

(d) *U.S. Patent No. 7,864,163*

448. Based on my discussion with Stephen Gray,<sup>852</sup> Apple’s ‘163 patent describes a method for viewing and navigating a “structured electronic document” (e.g., a web page) on handheld, small-screen devices. For example, in response to a first tap on a “box” of content, the user is provided an enlarged and centered view of the first “box” (“tap-to-zoom” gesture). While viewing the first, enlarged box, a user can then make a “second gesture” on a second “box” of content and the view will re-center on the second “box” (“tap-to-pan”).

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<sup>848</sup> Conversation with Trevor Darrell, April 11, 2012. Conversation with Jaewoo Park, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>849</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>850</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee). Conversation with Jong-wook Shim, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>851</sup> Schedule 13.2. [1.2]

<sup>852</sup> Conversation with Stephen Gray, April 13, 2012.

449. I have also reviewed the description of the '163 Patent in the expert report for Apple's infringement expert on the '163 Patent, Dr. Karan Singh. Dr. Singh describes the '163 Patent as follows:<sup>853</sup>



450. Based on discussions with Stephen Gray and Samsung engineers,<sup>854</sup> Samsung has already modified the operation of its Galaxy S II phones such that the allegedly infringing behavior identified by Apple's technical expert for the "tap-to-pan" feature has been designed around. Other design arounds include removing the "tap-to pan" feature entirely, such that the view will not re-center on a second "box" of content in response to a second gesture.

451. Samsung engineers have estimated that the design around could have been completed in a total of two weeks and two days if Samsung would have known that it may have been out of the market without the design around.<sup>855</sup> Based on design around hours provided by the Samsung engineers and wage data provided by Samsung HR,<sup>856</sup> the total cost of the design around is \$5,880.<sup>857</sup>

## **(ii) Multitouch Utility Patents**

### **(a) U.S. Patent No. 7,663,607**

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<sup>853</sup> Expert Report of Karan Singh, Ph.D. Regarding Infringement of U.S. Patents Nos. 7,864,163, 7,844,915 and 7,853,891, March 22, 2012, p. 7. [13.15]

<sup>854</sup> Conversation with Stephen Gray, April 13, 2012. Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>855</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>856</sup> Conversation with Jaewoo Park and Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee). Conversation with Jong-wook Shim, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>857</sup> Schedule 13.3. [1.2]

452. Based on my discussion with Brian Von Herzen,<sup>858</sup> the '607 patent is a touchscreen hardware patent and covers a two-layer transparent touchscreen capable of detecting multi-touch. The patent claims cover a specific arrangement of transparent conductive lines/electrodes on two separate layers that are electrically isolated from each other.

453. I have also reviewed the description of the '607 Patent in the expert report for Apple's infringement expert on the '607 Patent, Dr. Michel Maharbiz. Dr. Maharbiz describes the '607 Patent as follows.<sup>859</sup>



454. Apple accuses only Samsung's tablets of infringement – the Galaxy Tab 7.0 (3G), the Galaxy Tab 7.0, and the Galaxy Tab 10.1 (WiFi).<sup>860</sup> The '607 Patent was issued on February 16, 2010<sup>861</sup> and the Galaxy Tab 7.0 (3G) was first sold by STA in October 2010.<sup>862</sup>

455. Based on discussions with Brian Von Herzen and Samsung engineers,<sup>863</sup> Samsung has a design around option that involves a single layer of transparent conductive lines and therefore falls outside the two-layer arrangement claimed in the '607 patent.

456. Based upon conversations with a Samsung engineer,<sup>864</sup> the single layer design around has already been completed. The design work started on July 20, 2010 and was completed in September 2011. However, the design around work was completed based on a design plan that did not anticipate that the product would be out of the market without the design around. Samsung has estimated that the design around could have been completed in

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<sup>858</sup> Conversation with Brian Von Herzen, April 12, 2012.

<sup>859</sup> Expert Report of Michel Maharbiz, Ph.D. Regarding Infringement of U.S. Patent Nos. 7,663,607 and 7,920,129, March 22, 2012, p. 8. [13.13]

<sup>860</sup> Schedule 7.1. [1.2]

<sup>861</sup> U.S. Patent No. 7,663,607 B2. [2.7]

<sup>862</sup> Schedule {10.28}. [1.2]

<sup>863</sup> Conversation with Brian Von Herzen, April 12, 2012. Conversation with Hoshin Lee, Sun-young Yi, Jaewoo Park, Heonseok Lee, and Jong-wook Shim, April 12, 2012.

<sup>864</sup> Conversation with Heonseok Lee, April 12, 2012 (with translation assistance from Hoshin Lee).

a total of six months if it would have known that it may have been out of the market without the design around.

457. Based on data provided by a Samsung engineer,<sup>865</sup> the total cost of the design around was about \$1.6 million. A single layer panel would cost less to produce than a two-layer panel, and the cost savings per unit would be about \$3 to \$5.

458. The design around work actually started in July 2010, but I have used the announcement of the Tab 7.0 (3G) on September 16, 2010<sup>866</sup> as the beginning of the six-month period, which means that the design around would have been completed on March 16, 2011. Given there is a period of more than 1 month between the start of the release data of the product (released on November 10, 2010),<sup>867</sup> I have considered the effect of Samsung not having a non-infringing alternative on the reasonable royalty that would be negotiated.

459. As I describe in Section IV.A.4.b), Apple would not lose any sales related to the sale of the Galaxy Tab 7.0 (3G) because these products are different sized products at very different price points. In addition, the design around would be completed well ahead of the time that the Tab 10.1 was launched on June 8, 2011.<sup>868</sup> Therefore, lost sales by Apple would not be considered by the parties at the hypothetical negotiation. It is my opinion that the parties would consider the design around cost as a license for the Tab 10.1 and would negotiate a reasonable royalty for the Tab 7.0 (3G). I discuss the reasonable royalty rate that the parties would negotiate for the '607 Patent in Section IV.E.

(b) *U.S. Patent No. 7,920,129*

460. Based on my discussion with Brian Von Herzen,<sup>869</sup> the '129 patent claims the basic '607 two-layer electrode structure but specifies that the bottom traces (i.e., traces further from the user and closer to the LCD) should be substantially wider than the top electrodes (i.e., electrodes closer to the user) to provide shielding for the thinner top electrodes.

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<sup>865</sup> Conversation with Heonseok Lee, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>866</sup> Samsung Press Release: Samsung Mobile Expands Galaxy Product Portfolio with Launch of Samsung Galaxy Tab, September 16, 2010, <[http://www.samsung.com/us/news/newsPreviewRead.do?news\\_seq=19537](http://www.samsung.com/us/news/newsPreviewRead.do?news_seq=19537)>. [15.33]

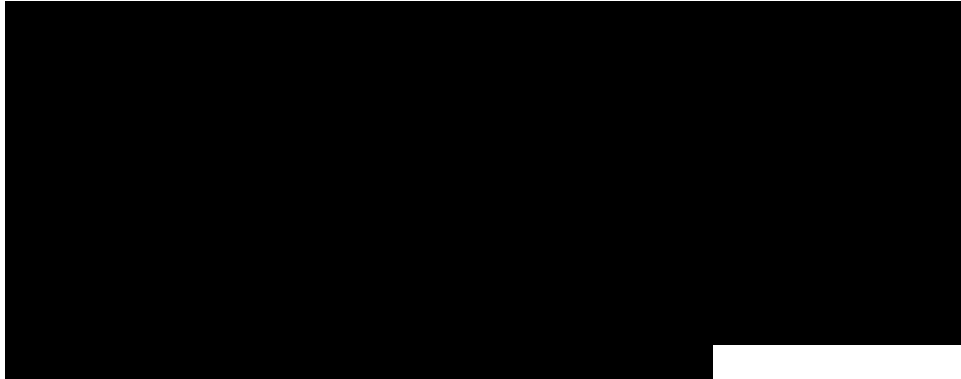
<sup>867</sup> Schedule 6.3. [1.2]

<sup>868</sup> Schedule 6.3. [1.2]

<sup>869</sup> Conversation with Brian Von Herzen, April 12, 2012.



461. I have also reviewed the description of the '129 Patent in the expert report for Apple's infringement expert on the '129 Patent, Dr. Michel Maharbiz. Dr. Maharbiz describes the '129 Patent as follows:<sup>870</sup>



462. Apple accuses only Samsung's tablets of infringement – the Galaxy Tab 7.0 (3G), the Galaxy Tab 7.0, and the Galaxy Tab 10.1 (WiFi).<sup>871</sup> The Galaxy Tab 7.0 (3G) was first sold by STA in October 2010,<sup>872</sup> but the '129 Patent did not issue until April 5, 2011.<sup>873</sup>

463. Based on discussions with Brian Von Herzen and a Samsung engineer,<sup>874</sup> the design around options discussed above for the '607 patent apply equally to the '129 patent. Like the '607 patent, Samsung's single layer design would effectively design around the '129 patent.<sup>875</sup>

464. In addition to the single layer design around for the '607 Patent, I understand that a second design around exists in which the width of the bottom traces and top traces would be changed at their points of intersection to avoid the limitation of the claims that the bottom traces are substantially wider. This design around would be considered a minor revision to an existing

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<sup>870</sup> Expert Report of Michel Maharbiz, Ph.D. Regarding Infringement of U.S. Patent Nos. 7,663,607 and 7,920,129, March 22, 2012, p. 72. [13.13]

<sup>871</sup> Schedule {7.1}. [1.2]

<sup>872</sup> Schedule {10.28}. [1.2]

<sup>873</sup> U.S. Patent No. 7,920,129 B2. [2.9]

<sup>874</sup> Conversation with Brian Von Herzen, April 12, 2012. Conversation with Heonseok Lee, April 12, 2012 (with translation assistance from Hoshin Lee).

<sup>875</sup> If the '607 Patent and the '129 Patent are found to be valid and infringed, then the design around would have been completed in March 2011 as described above. However, if the '607 Patent is not found to be valid, enforceable, and infringed, then the design around would not be completed in April 2011. By the issuance of the '129 Patent in April, approximately 9 months of the actual 15 month actual design around period was completed. Even though this is roughly 60 percent of the actual design around period, I estimate that this would reduce the hypothetical design around period by at least 50% to 3 months or less. Therefore, the design around would have been started when the '129 Patent issued on April 5, 2011 and completed by July, 2011. However, given the availability of a second design around, I do not adjust the design around cost for the '129 Patent.

product and would only require a change of the masks of the ITO layers.<sup>876</sup> This design around could be implemented if the single layer design around was not completed by the time the '129 Patent was issued.

(c) *U.S. Patent No. 7,844,915*

465. Based on my discussion with Stephen Gray,<sup>877</sup> the '915 patent covers the single finger swipe to scroll and a two or more finger gesture to scale, as well as rubberbanding.

466. I have also reviewed the description of the '915 Patent in the expert report for Apple's infringement expert on the '915 Patent, Dr. Karan Singh. Dr. Singh describes the '915 Patent as follows.<sup>878</sup>



467. Based on discussions with Stephen Gray and a Samsung engineer,<sup>879</sup> a design around could be implemented by modifying the source code to skip the initial check for one versus two or more touch inputs and, instead, determine whether to scroll, scale, or rotate the view based on the direction of movement over time of all touch input. Mr. Gray confirmed that this change to the operating system would have no perceptible impact on touchscreen responsiveness. Based upon time estimates provided by Mr. Park, the total cost of the design around is \$10,080.<sup>880</sup>

468. In addition, Stephen Gray described that Samsung has available additional design around alternatives for the asserted claims of the '915 Patent. Samsung has already implemented two alternative design arounds for this patent. First, the blue glow feature described above in the section on the '381 patent can be used to replace the rubberbanding effects described in the '915 Patent. Second, Samsung has a novel non-infringing alternative to the two-finger scale gesture called tilt zoom, which uses the angle and rotation of the entire

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<sup>876</sup> Conversation with Brian Von Herzen, April 12, 2012.

<sup>877</sup> Conversation with Stephen Gray, April 13, 2012.

<sup>878</sup> Expert Report of Karan Singh, Ph.D. Regarding Infringement of U.S. Patents Nos. 7,864,163, 7,844,915 and 7,853,891, March 22, 2012, p. 68. [13.15]

<sup>879</sup> Conversation with Stephen Gray, April 13, 2012.

<sup>880</sup> Schedule 13. [1.2]

touch-sensitive device to scale the view. Tilt zoom has been implemented in the Samsung’s tablets.

(d) *Other features of Multitouch*

469. Apple’s multitouch utility patents contributions to multitouch technology are at most a small part of the technology necessary to implement multitouch. [REDACTED]

[REDACTED]

470. Steve Hotelling, a named inventor on both the ‘607 Patent and the ‘129 Patent,<sup>881</sup> testified as follows.<sup>882</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>881</sup> U.S. Patent No. 7,663,607 B2. [2.7] See *a/so* U.S. Patent No. 7,920,129. [2.9]

<sup>882</sup> Deposition of Steven Hotelling, October 21, 2011, pp. 27-28, 100-101. [11.21]

[illegible]

472. Scott Herz, the other named inventor on the '915 Patent, testified as follows:<sup>884</sup>

<sup>883</sup> Deposition of Andrew Platzter, October 18, 2011, pp. 28, 35-36, 125. [11.22]

[REDACTED]

[REDACTED]

[REDACTED]

473. In addition, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Given Apple’s assertions that Samsung infringes Apple’s multitouch utility patents, it must be other multi-touch contributions to Apple’s products that result in the reported superior performance.

474. Apple’s damages expert, Mr. Musika, appears to have assumed that the multitouch utility patents have invented multitouch capability and touch gestures, but the contributions of Apple’s multitouch patents are not that broad.

### (iii) Design IP

475. For the design IP, Samsung’s own accused products provide ample evidence that acceptable, non-infringing alternatives exist. As can be observed upon inspection of Schedule 6.1 at Volume 1, Tab 2 of my Report, for each asserted element of design IP, Samsung has *at least* eight of the 29 accused products that are not accused of infringement.

476. More specifically, for the GUI Design Patents, Apple does not accuse the Nexus products, the Galaxy S II products, and several other smartphones of infringement. For the Electronic Device Design Patents and the asserted trade dress, there are a wide range of smartphones that are not accused of infringement. For the asserted trademarks, it varies widely by trademark, but there are a number of accused products that are not accused for each trademark.

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<sup>884</sup> Deposition of Scott Herz, October 14, 2011, p. 38. [11.24]

<sup>885</sup> Deposition of Michael Tchao, February 21, 2012, pp. 7, 164-165. [10.14]

<sup>886</sup> Deposition of Michael Tchao, February 21, 2012, pp. 164-165. [10.14]

477. Indeed, several of Samsung's top sellers are not accused of all groups of design IP. Samsung has 7 different accused products that have sold more than 1 million units in the United States.<sup>887</sup>

- The Captivate is not accused of infringing the Electronic Device design patents;
- The Epic 4G is not accused of infringing the Electronic Device design patents;
- The Fascinate is accused of infringing one of the Electronic Device design patents (the D677);
- The Galaxy Prevail is not accused of infringing either the GUI design patents or the Electronic Device design patents;
- The Galaxy S 4G is accused of infringing all groups of design IP;
- The Intercept is not accused of infringing the GUI design patents, Electronic Device design patents, or the trade dress (it is accused of infringing one trademark);
- The Vibrant is accused of infringing all groups of design IP.

478. In addition to the accused products, Samsung sells a wide range of smartphones that have not been accused of *any* infringement of design intellectual property. Based on the same sources that Mr. Musika uses in his Morflo analysis, I have calculated that for the period from Q2 2010 through Q4 2011, between 25 and 30 percent of Samsung's smartphones are not accused of infringement.<sup>888</sup>

479. Finally, there is a wide range of other smartphones in the marketplace that have been successful that are apparently not infringing Apple's design IP asserted in this lawsuit. I am not aware of Apple asserting its design intellectual property against any other smartphone manufacturer.

480. I have requested from counsel pictures of the trademark icons used in products that are not accused of infringement. The accused icons make up a small portion of the total icons in the accused products.<sup>889</sup> I summarize the icons that were received below:

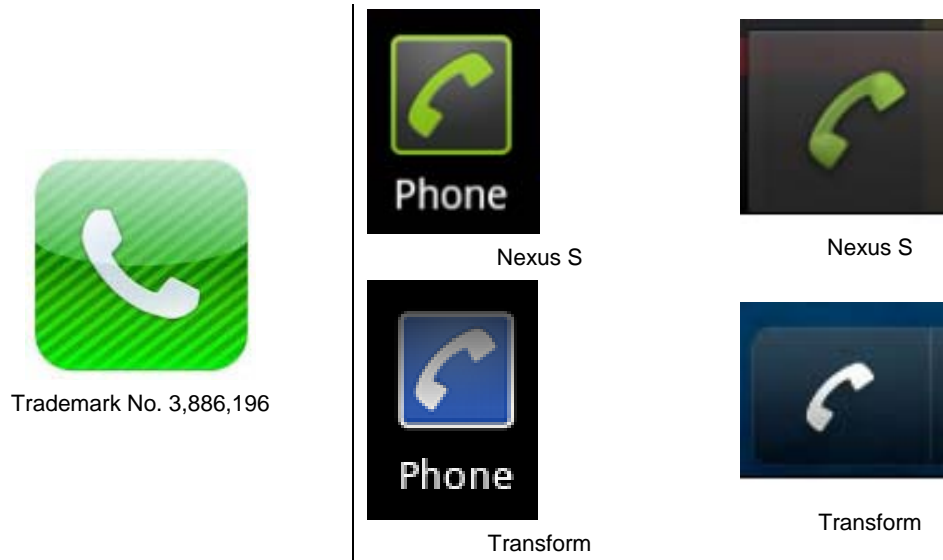
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<sup>887</sup> Schedules 5.1 and 6.1. [1.2]

<sup>888</sup> Schedule 11. [1.2]

<sup>889</sup> Schedule 17. [1.2]

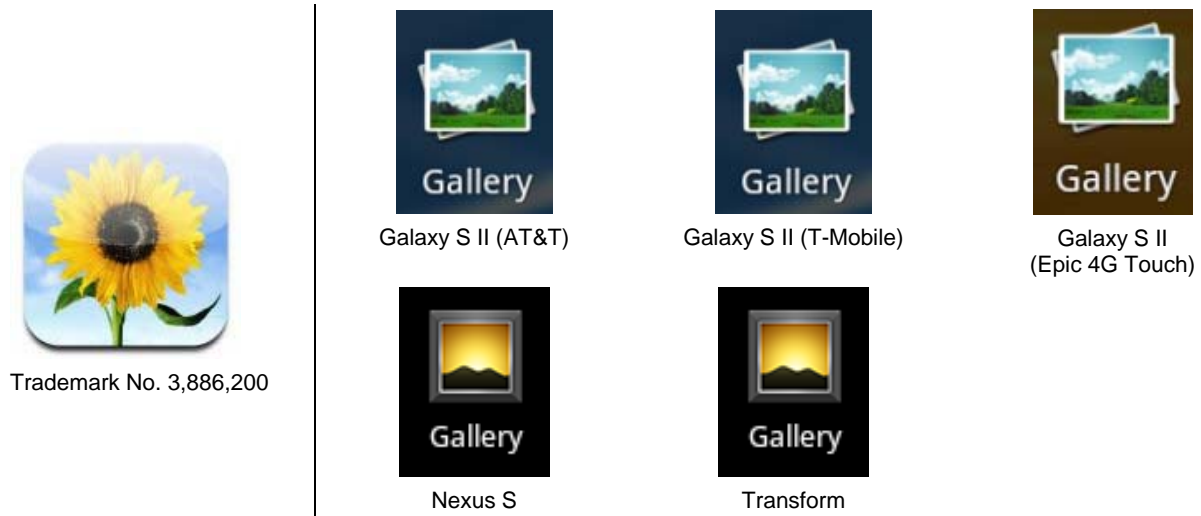
**Figure 60: Alternative Icons for Apple Registered Icon Trademark No. 3,886,196**



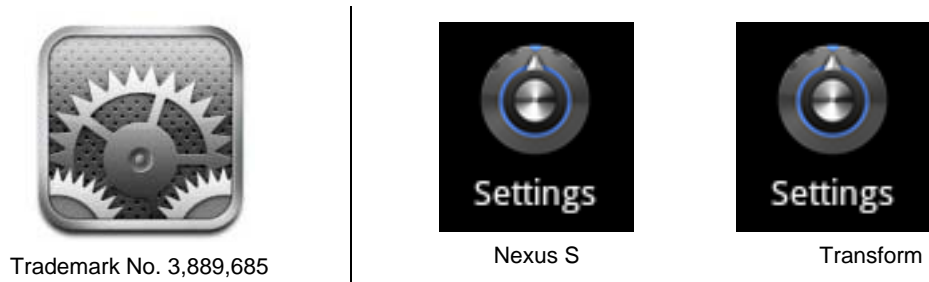
**Figure 61: Alternative Icons for Apple Registered Icon Trademark No. 3,889,642**



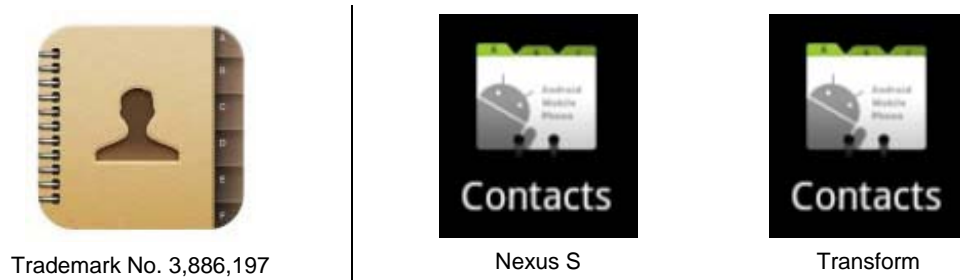
**Figure 62: Alternative Icons for Apple Registered Icon Trademark No. 3,886,200**



**Figure 63: Alternative Icons for Apple Registered Icon Trademark No. 3,889,685**



**Figure 64: Alternative Icons for Apple Registered Icon Trademark No. 3,886,197**





**Figure 65 Alternative Icon for Apple Registered Icon Trademark No. 3,886,169**



**Figure 66: Alternative Icons for Apple iTunes Store Trademark**



481. As noted above, the Galaxy S II products have not been accused of infringing the GUI Design Patents, but several products accused of infringement of other IP have not been accused of infringing the GUI Design Patents. In addition, I understand that Samsung sells its smartphones in Korea with a grid of 3 icons wide by 5 icons tall.<sup>890</sup> The figures below provide the screen images for the Galaxy SII (T-Mobile), which is not accused of infringing the GUI Design Patents, a snapshot of the Korean phone screen showing the 3x5 grid, and the Vibrant, which is accused of infringing the GUI Design Patents:

<sup>890</sup> Conversation with Hoshinn Lee, April 16, 2012.

**Figure 67: Alternative Images for Accused (Vibrant) Screen Image**



482. As demonstrated above, I understand that Samsung could change the number of rows or columns on its GUI and design around the GUI Design Patents.

483. I have discussed the cost to design new icons or to implement a new GUI on the accused products with a Samsung designer and engineer.<sup>891</sup> The cost is less than \$500 per icon and is \$1,152 for the GUI interface.<sup>892</sup>

484. In addition to the GUI Design Patents and trademarks described above, Apple's asserted design-related IP includes the Electronic Device Design Patents and the trade dress. If found to be valid and infringed, Apple's Electronic Device Design Patents and trade dress cover some elements of the device itself. However, for each asserted Electronic Device Design Patent and individual Trade Dress, there are *at least* 14 Samsung products that have been accused of infringement in this lawsuit that are not accused of that specific assertion.<sup>893</sup> Therefore, Samsung has a number of alternatives available to it, regardless of which Trade

<sup>891</sup> Conversation with Sun-young Yi, April 12, 2012 (with translation assistance from Hoshin Lee).  
Conversation with Sun-young Yi and Jaewoo Park, April 16, 2012 (with translation assistance from Hoshin Lee).

<sup>892</sup> Schedule 13.5. [1.2]

<sup>893</sup> Schedule 6.1. [1.2]

Dress / Electronic Device Design Patents are found to be infringed. For example, these products are not accused of infringing any Trade Dress or Electronic Device Design Patent:<sup>894</sup>

- Acclaim
- Exhibit 4G
- Gem
- Gravity / Gravity Smart
- Indulge
- Intercept
- Nexus S
- Nexus S 4G
- Replenish
- Sidekick
- Transform

485. For the tablets, the Tab 7.0 (3G) and Tab 8.9 is not accused of infringing the D889 Patent, and the Tab 8.9 is not accused of asserting the iPad / iPad 2 trade dress.<sup>895</sup>

486. In addition, Samsung has employed a wide range of smartphone designs in the market that have found to be acceptable and are not accused of infringement in this lawsuit. Further, numerous other smartphone and tablet manufacturers have competed in the marketplace with alternative designs.

487. These wide range of design alternatives are acceptable alternatives for the devices accused of infringing the Electronic Device Design Patents and trade dress. Apple has provided no evidence that the “design” referred to by Apple’s experts is connected in any way with the specific design-related IP in this lawsuit. Therefore, I conclude that Samsung has acceptable, noninfringing alternatives for the Electronic Device Design Patents and Apple’s trade dress assertions. Because Samsung had numerous smartphones on the market at all times that do not practice the asserted Electronic Device Design Patents and trade dress, I do not consider design around costs.

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<sup>894</sup> Schedule 6.1. [1.2]

<sup>895</sup> Schedule 6.1. [1.2]

*(b) Implications of this Georgia-Pacific Factor Regarding a Reasonable Royalty*

488. From an economic perspective, the cost of Samsung's next best alternative which are non-infringing ways of offering the same functionality or designing out the functionality if the feature is not desired by their customers is the most that Samsung would be willing to pay Apple and Apple would be entitled to receive. In my opinion, based on all the facts that I have considered, this factor is my starting point in arriving at my reasonable royalty damages and therefore is neutral.

**(10) Factor #10—the nature of the patented invention, the character of the commercial embodiment of it as owned and produced by the licensor and the benefits to those who have used the invention.**

*(a) The nature of the patented invention*

489. I have discussed the asserted IP at length in this report.

*(b) The character of the commercial embodiment of it as owned and produced by the licensor*

490. I understand that Apple has made use of the technology enabled by the Patents-in-Suit in iPhones and iPads.

*(c) The benefits to those who have used the invention*

**(i) Multi-Touch Functionality**

491. According a 2009 Samsung Research Presentation, “[t]ouch interaction lets users control their views in a fluid manner, eliminating the notion of a hierarchical drill-up / drill-down navigation.”<sup>896</sup> In its January 21, 2009 presentation entitled “User Experience Design Philosophy” Samsung states that “[t]ouch screen and gesture interface give users more direct control and set a new standard.”<sup>897</sup> In another internal document, Samsung points out finger

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<sup>896</sup> Samsung Research Presentation, July 2009, SAMNDCA00220268-312 at ‘303. [10.15]

<sup>897</sup> User Experience Design Philosophy, Samsung, January 21, 2008, SAMNDCA00207427-477 at ‘466. [11.1]

based touchscreens are more accurate and more user-friendly.<sup>898</sup> Finger-operated touchscreens typically work best on large displays above 3 inches.<sup>899</sup>

**(ii) Bounce Back Effect**

492. According to a San Jose Mobile Communications Lab presentation, “user might be confused when the page cannot be moved.”<sup>900</sup> Therefore, it is my understanding that a bounce back effect provides good visual user experience.

*(d) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

493. Based on the cost of design around cost as the starting point for the hypothetical negotiation, this factor is neutral in my determination of the reasonable royalty amount.

**(11) Factor #11—the extent to which the infringer has made use of the invention and any evidence probative of the value of that use**

*(a) Use of the Invention*

494. Apple asserts that 32 Samsung’s smartphone and tablets embody the Patents-in-Suit.<sup>901</sup>

*(b) Evidence probative of the value Samsung received from using the Apple Inventions*

495. It is my understanding that 30 Samsung’s smartphones and tablets are accused by Apple of using the technology taught by the Patent-in-Suit.<sup>902</sup> Of these 32 products Samsung has provided data on 28. STA and SEA sales of these accused products are 18,230,472 units from May 2010 through December 2011.

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<sup>898</sup> 2009 Mobile US Forecast: M.T.O.C., Samsung Electronics, November 2011, SAMNDCA00218832-902 at ‘858. [11.2]

<sup>899</sup> 2009 Mobile US Forecast: M.T.O.C., Samsung Electronics, November 2011, SAMNDCA00218832-902 at ‘858. [11.2]

<sup>900</sup> Bouncing Effect in Browser, San Jose Mobile Communications Lab, SAMNDCA00201327-335 at ‘328. [11.3]

<sup>901</sup> Musika Report, Exhibit 4. [2.2]

<sup>902</sup> Musika Report, Exhibit 4. [2.2]

*(c) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

496. Based on the cost of design around cost as the starting point for the hypothetical negotiation, this factor is neutral in my determination of the reasonable royalty amount.

**(12) Factor #12—the portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.**

*(a) Licenses in which Samsung Licensed Technology to Apple*

497. I have received one license, signed by Apple, but not Samsung, in which Samsung was to license standards essential technology to Apple. This license is summarized at Schedule 1 at Tab 3 of my report.

*(b) Other Agreements in which Samsung is a Named Party*

498. I have received 41 other agreements in which Samsung was a named party, which can be found at Schedule 2 at Tab 3 of my report.

*(c) Other Agreements in which Apple is a Named Party*

499. I have received [REDACTED] agreements in which Apple is a named party, which can be found at Schedule 1 at Tab 3 of my report.

*(d) Other Agreements*

500. I have received [REDACTED] agreements that involve neither Samsung nor Apple, which can be found at Schedule 3 at Tab 3 of my report.

*(e) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

501. I agree with Mr. Musika “there is no evidence that relates to the portion of the profit or selling price that may be customary in this business to allow for the use of the invention or analogous invention for any of the categories of Apple Intellectual Property in Suit with the limited exception of trademarks to some degree.”<sup>903</sup> Therefore, this factor is neutral in my determination of the reasonable royalty amount.

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<sup>903</sup> Musika Report, p. 86. [2.2]

**(13) Factor #13—the proportion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks or significant features or improvements added by the infringer.**

*(a) The proportion of the realizable profit that should be credited to the Apple's Inventions*

502. This factor attempts to take into account the relative contribution of the patented feature to the success of the product. It is generally the case that a licensee is less disposed to agree to a high royalty if the patented feature forms only a small part of the product, either physically or economically.<sup>904</sup>

503. Apple asserts that Samsung's smartphone and tablets embody the Patents-in-Suit. However, Samsung's accused products owe much of their value to Samsung's own creative and business inputs, not solely to the use of the Patents-in-Suit. I address each of Samsung's business and technology inputs below in turn.

**(i) Business Inputs**

504. Samsung expends considerable time and effort to bring its products to market. Below is a brief discussion of Samsung's operations that contribute to bringing the accused smartphone and tables to market.

*(a) Research and Development*

505. Samsung states on its website that "[i]nnovation is crucial to Samsung's business. As new technologies are being constantly introduced to the market, speed is essential for remaining competitive in today's digital era, and new markets have to be pioneered continuously." "With competition in the smart phone space heating up, being able to introduce technology and user interface enhancements quickly is critical," noted Canalys analyst Tim Shepherd. "You also need to be able to integrate them seamlessly into the device to provide a great total user experience."<sup>905</sup>

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<sup>904</sup> Procter & Gamble Co. v. Paragon Trade Brands, Inc., 989 F. Supp. 547 at 613. [12.4]

<sup>905</sup> Canalys Research Release, Global Smart Phone Shipments Rise 28%, Nokia Retains Lead, but Apple Moves into Number Two Position, November 6, 2008, SAMNDCA00220313-316 at '314. [9.25]

506. Each year Samsung invests at least nine percent of its sales revenue in Research and Development activities.<sup>906</sup> “Samsung is committed to leading technology standardization and securing intellectual property rights.”<sup>907</sup>

507. Samsung's research and development network spans six Samsung centers in Korea and 18 more in nine other countries, including the United States, the United Kingdom, Russia, Israel, India, Japan and China, as well as other research centers and universities.<sup>908</sup> Samsung's Research and Development organization has three layers.<sup>909</sup> The Samsung Advanced Institute of Technology identifies growth engines for the future and oversees the securing and management of technology.<sup>910</sup> In turn, Research and Development centers of each business focus on technology that is expected to deliver the most promising long-term results.<sup>911</sup> Division product development teams are responsible for commercializing products scheduled to hit the market within one or two years.<sup>912</sup> More than a quarter of all Samsung employees work - 40,000 people - in the Research and Development centers.<sup>913</sup>

(b) *Samsung Marketing and Advertising Efforts*

508. Samsung's marketing and advertising efforts play an important role in promoting Samsung's products and increasing public awareness about them. Nielsen estimated that Samsung spent \$158 million on advertising in 2010.<sup>914</sup> In a Samsung internal presentation entitled “2010 Full Year Media Spend,” Samsung stated that its media spending was \$147.9 million in 2010, increasing by six times since 2009.<sup>915</sup> In particular, \$101 million was spent on

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<sup>906</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>907</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>908</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>909</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>910</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>911</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>912</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>913</sup> Research & Development - Our Businesses - About Samsung – Samsung, <<http://www.samsung.com/us/aboutsamsung/ourbusinesses/researchdevelopment.html>>, accessed on March 1, 2012. [11.4]

<sup>914</sup> Advertising Insights 2010 Product Update, Nielsen, March 4, 2011, SAMNDCA00235833-834 at '833. [11.5]

<sup>915</sup> Competitive Media Spend Update, Full Year 2010, SAMNDCA00236585-606 at '589. [11.6]



advertising of Galaxy S and Tablet in 2010.<sup>916</sup> Nearly 70 percent of Samsung’s Galaxy Tab media spending was invested in TV commercials, and the rest was spent on online and print advertising.<sup>917</sup> Overall, Samsung took the number one position at the most promoted OEM in 2010.<sup>918</sup>

509. According to a 2010 Samsung presentation, integrated advertising campaign of Galaxy S helped build rapid awareness and purchase interest for the Galaxy series.<sup>919</sup> In particular, Samsung launched press events and meetings, executed a media focused teaser campaign, developed scalable displays and new smartphone mockups to highlight the brand and products across the Galaxy S lineup, led 61 full training sessions across all carriers, reached over 4,000 sales representatives with training events, and conducted close to 30 webinars to support remote training.<sup>920</sup>

510. Samsung concluded that the key improvement in the 2010 advertising campaign from 2009 had been in the ads’ ability to communicate messages that differentiates Samsung on the marketplace. In particular, one of these differentiating product elements was Samsung’s Super AMOLED technology.<sup>921</sup> According to a Samsung 60-Day Post Launch Report for Infuse 4G, the 4.5” Super AMOLED screen of Infuse 4G smartphone was the top driver for purchase of Infuse 4G.<sup>922</sup>

(c) *Samsung’s Brand*

511. Most people rely on brand when making product purchasing decisions.<sup>923</sup> Samsung actively promotes its brand value - “a key engine of business growth,” according to Samsung.<sup>924</sup> Samsung’s brand value was ranked No.19 Best Global Brand in the world and No.

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<sup>916</sup> Samsung Presentation, SAMNDCA00236898-913 at ‘912. [11.7]

<sup>917</sup> Competitive Media Spend Update, Full Year 2010, SAMNDCA00236585-606 at ‘597. [11.6]

<sup>918</sup> Competitive Media Spend Update, Full Year 2010, SAMNDCA00236585-606 at ‘605. [11.6]

<sup>919</sup> Samsung Galaxy S Results and Key Learning, November 23, 2010, SAMNDCA00235207-246 at ‘208. [11.8]

<sup>920</sup> Samsung Galaxy S Results and Key Learning, November 23, 2010, SAMNDCA00235207-246 at ‘212. ‘214, ‘216, ‘242. [11.8]

<sup>921</sup> Samsung Q3 ‘10 Deep Dive, Galaxy S Campaign Review, November 18, 2010, SAMNDCA00235307-366 at ‘339. [11.9]

<sup>922</sup> STA Post Launch Consumer Insights, July 2011, SAMNDCA00027781-844 at ‘820. [4.16]

<sup>923</sup> Design for Messaging Phone, Samsung Design America, July 2008, SAMNDCA00220208-267 at ‘222. [11.10]

<sup>924</sup> History – Corporate Profile – About Samsung – Samsung, Samsung’s History, <[http://www.samsung.com/hk\\_en/aboutsamsung/corporateprofile/history.html](http://www.samsung.com/hk_en/aboutsamsung/corporateprofile/history.html)>, accessed on March 1, 2012. [11.11]

9 in IT industry by Interbrand in 2010.<sup>925</sup> As stated in an Interbrand "Best Global Brands 2010" report, "Samsung has been on the forefront of digital and design, developing new products and increasing its presence in all its markets. Its sales growth, even in tough economic times, demonstrates its ability to effectively hedge its portfolio of businesses."<sup>926</sup>

**(ii) Design and Technology Inputs**

*(a) Super AMOLED Technology*

512. Samsung highlights its Super AMOLED technology in its presentations and on its website. In its June 30, 2010 presentation, Samsung states that Super AMOLED screen on Galaxy S provides best color reproduction, best outdoor readability, and best pixel response.<sup>927</sup> According to a Verizon Executive Meeting presentation, Samsung Galaxy Tab 7's Super AMOLED display improves brightness and outdoor visibility.<sup>928</sup>

513. Samsung also describes its Super AMOLED technology on its website:<sup>929</sup>

Samsung's new SUPER AMOLED screen is the world's brightest SUPER AMOLED screen displaying vibrant and vivid colors in HD movies. Even in bright sunlight the screen is perfectly clear so filming outdoors is a breeze. Even filming incredibly fast action scenes or sports are not a problem when using the Galaxy S HD video capture feature.

Samsung's brilliant SUPER AMOLED screen is a much brighter, less reflective, and slimmer than any general AMOLED screen. The ultra-brilliance of SUPER AMOLED, makes video so astonishingly vivid, your display looks ultra real. The SUPER AMOLED screen comes with free viewing angle & super fast response. The SUPER AMOLED screen reflects 5 times less light, which is an incredible reduction from 20% to 4%. As 80 - 100% of original light is coming through to arrive to your eyes, you can now have a great view even in the outdoors.

514. Samsung's Super AMOLED technology was highlighted in press releases and media. Media and online reviews praised Droid Charge for its Super AMOLED screen.<sup>930</sup> For instance, CNET noted, "[i]t is stunning: the sharpness of the AMOLED Plus display really comes through when watching video and colors are rich and pop right off the screen. Also, as

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<sup>925</sup> Memo: 2010 Brand Value Rankings by Interbrand, September 16, 2010, SAMNDCA00234695-698 at '698. [11.12]

<sup>926</sup> Best Global Brands 2010, Interbrand, SAMNDCA00234567-630 at '587. [11.13]

<sup>927</sup> Samsung 'Dempsey,' June 30, 2010, SAMNDCA00024963-971 at '964. [11.14]

<sup>928</sup> VZW Executive Meeting, April 20-21<sup>st</sup>, 2011, SAMNDCA00024794-860 at '820. [11.15]

<sup>929</sup> Samsung Smartphone Technology, <<http://www.samsung.com/au/smartphone/technology/super-AMOLED.html>>, accessed on March 5, 2012. [11.16]

<sup>930</sup> STA Post Launch Consumer Insights, July 2011, SAMNDCA00027781-844 at '783. [4.16]

promised, outdoor visibility is better than with a lot of smartphones, and we were able to read the screen at various angles."<sup>931</sup>

515. Media and online reviews were also positive for Infuse 4G's Super AMOLED screen.<sup>932</sup> [REDACTED]

[REDACTED]

516. [REDACTED]

517. Third party studies and surveys also pointed to the Super AMOLED display as a feature that differentiates Samsung's products. Strategy Analytics conducted a blind test when users watched same video trailer simultaneously on devices with Super AMOLED Plus and competitor's display to determine preference.<sup>936</sup> Strategy Analytics found that "Samsung's Super AMOLED Plus display preferred more than 2 to 1 vs. competitor's display."<sup>937</sup>

518. Mr. Joswiak [REDACTED]

*(b) Number of Samsung Patents*

519. In 2009 Samsung was the second top patent winner with 3,611 total numbers of patents.<sup>940</sup> According to a Samsung's 2010 annual report, in 2010 Samsung registered 4,551 patents in US, second in volume only to IBM.<sup>941</sup>

<sup>931</sup> STA Post Launch Consumer Insights, July 2011, SAMNDCA00027781-844 at '804. [4.16]

<sup>932</sup> STA Post Launch Consumer Insights, July 2011, SAMNDCA00027781-844 at '784. [4.16]

<sup>933</sup> [REDACTED]  
APLNDCA0001524924-925 at '924. [15.30]

<sup>934</sup> [REDACTED]  
APLNDCA0001525057-058 at '057. [15.29]

<sup>935</sup> [REDACTED]  
APLNDCA0001525057-058 at '057. [15.29]

<sup>936</sup> Samsung, September 16, 2011, SAMNDCA00256983-7025 at '7017. [11.17]

<sup>937</sup> Samsung, September 16, 2011, SAMNDCA00256983-7025 at '7017. [11.17]

<sup>938</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, pp. 438-439. [9.3]

<sup>939</sup> Deposition of Gregory Joswiak, Volume II, February 24, 2012, pp. 438-439. [9.3]

<sup>940</sup> Samsung Overview, SAMNDCA00256938-962 at '943. [11.18]

*(b) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

520. This factor indicates that the major reasons for Samsung's success in selling the accused products is not the result of practicing the patents-in-suit but are due to other contributions of Samsung. However, this factor is neutral based on my choice of baseline royalty amounts.

**(14) Factor #14—the Opinion Testimony of Experts**

521. I have considered information provided by to be my Trevor Darrell, Andries Van Dam, Brian Von Herzon, and Stephen Gray.

*(a) Implications of This Georgia-Pacific Factor Regarding a Reasonable Royalty*

522. I have considered this information in other Georgia Pacific factors. Therefore, this factor is neutral.

**(15) Factor #15—the amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement, that is, the amount which a prudent licensee—who desires, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.**

523. The seminal approach for determining a reasonable royalty is the “willing licensor/willing licensee” approach. This approach assumes that a reasonable royalty rate with respect to patent infringement damages should reflect, in part, the amount of money a willing licensor and willing licensee would negotiate for a license to utilize the invention. A technique for estimating such a royalty is to assume that the patentee and infringer, each possessing similar information that was known and knowable at the time, come together and conduct a hypothetical negotiation. In this hypothetical negotiation, each party's strengths, weaknesses and expectations are considered and form the basis for the opined royalty rate. This fifteenth factor in essence synthesizes the fourteen factors discussed above.

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<sup>941</sup> 2010 Samsung Electronics Annual Report, p. 3. [11.19]

**c) Major Facts Known or Knowable to Both Parties at the Hypothetical Negotiation**

524. Taking into consideration the first fourteen *Georgia-Pacific* factors, the most important facts affecting the parties bargaining position at the hypothetical negotiation can be summarized as follows:

- The parties knew with certainty that Samsung's products infringed the valid and enforceable Patents-in-Suit.
- There are commercially acceptable non-infringing alternatives to the patents-in-suit.
- Apple is not a willing licensor.
- Samsung and Apple are direct competitors.
- Samsung is a major supplier of components to Apple.

**(1) Summary of *Georgia-Pacific* Factor Analysis**

**Figure 68: Summary of *Georgia-Pacific* Factors and Their Impact on the Reasonable Royalty Rate**

<i>Georgia-Pacific</i> Factor	Impact on Royalty Rate	Comments
1. Royalties received by patentee for licensing the Patents-in-Suit	Neutral	Apple did not produce any licenses to the patents-in-suit. However Apple acquired two foundational patents related to multi-touch functionality in a purchase of the entire FingerWorks company for \$13.5 million. This provides a reasonableness check for the value of the '607 and '129, Patents.
2. Rates licensee pays for the use of other comparable patents	Neutral	I found none of the Samsung licenses where Samsung was the licensor of patents probative to the patents-in-suit.
3. Nature and scope of the license.	Neutral	Based on the design around costs for the patents-in-suit, the nature and scope of the license are not relevant.
4. Licensor's established policy regarding licensing.	Increase to full design cost	Apple is not a willing licensor and so would not be willing to take anything less than the cost of a design around to their patents-in-suit.
5. The commercial relationship between the licensor and the licensee.	Increase to full design cost	Apple and Samsung are competitors and so Apple would not be willing to take anything less than the cost of a design around to their patents-in-suit.
6. The effect of sales of the patented product on sales of other products (convoyed sales).	Neutral	There is no proof that the patents-in-suit are primary drivers of Apple's or Samsung's sales of smartphones or tablets and so convoyed sales would not be properly considered in the hypothetical negotiation.
7. The duration of the Patents-in-Suit and the term of the license.	Neutral	The duration of the patents and term of the hypothetical license agreement are longer than a typical product lifecycle in this industry.
8. The established profitability of the product; its commercial success and its current popularity.	Neutral	Based on the design around costs for the patents-in-suit, the established profitability and commercial success of the accused products are not relevant.
9. The utility and advantages of the patent property over the old modes and devices.	Neutral	The design around costs for the patents-in-suit provide a starting point royalty amount for the patents-in-suit.

<i>Georgia-Pacific</i> Factor	Impact on Royalty Rate	Comments
10. The nature of the patented feature and its benefits to the user.	Neutral	Based on the design around costs for the patents-in-suit, the nature of the patented feature and its benefits to the user are not relevant.
11. The extent to which the infringer has made use of the Patents-in-Suit and any evidence probative of the value of that use.	Neutral	Based on the design around costs for the patents-in-suit, the extent of use by Samsung is not relevant.
12. Customary royalty rates for this industry.	Neutral	I found no customary royalty rates for this industry.
13. Apportionment of the realizable profit between that which should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.	Neutral	Samsung contributes significant value to the accused products that have nothing to do with the patents-in-suit. However, based on the design around costs for the patents-in-suit, this is not relevant to my conclusion.
14. The opinion testimony of experts	Neutral	I have considered this information in other <i>Georgia Pacific</i> factors.

525. In my opinion, of the fourteen *Georgia-Pacific* factors that are relevant to consider for raising or lowering the reasonable royalty rate no factors tend to lower the reasonable royalty rate, two factors tend to raise the rate to the full cost of the design arounds and twelve factors have a neutral effect.

#### **d) Conclusions Regarding Reasonable Royalty**

526. In my opinion, based on all the considerations described above, the reasonable royalty amount should be the full cost of designing around the patents-in-suit.

527. In addition, for the ‘607 Patent, the design around cost would only cover the Tab 10.1. Therefore, the parties would agree to a reasonable royalty that apportions the profits of the other products accused of infringing the ‘607 Patent (the Galaxy Tab 7.0 (3G) between the parties. To determine a reasonable apportionment, I follow a methodology similar to that described in my unjust enrichment calculation.

528. I use data from

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The results of my apportionment analysis are summarized in Schedule 7.2 at Tab 2 of my report.

529. Based on this analysis, I conclude that the parties would have agreed to a six percent apportionment of profit to the ‘607 Patent. Applying this 6 percent apportionment to Samsung’s operating profit for the Galaxy Tab 7.0 results in an apportioned profit of \$1,395,139.<sup>943</sup> I next divide this profit by the number of units sold to conclude a reasonable royalty rate of \$2.10 per unit.<sup>944</sup>

## 2. Calculation of Royalties Due

530. Applying the full cost of the design around for the patents-in-suit results in royalties due as follows:

	<u>Design Around Costs</u>
<u>Utility Patents</u>	
'002	\$9,240
'163	\$5,880
'381	\$11,340
'891	\$8,820
'915	\$10,080
'607	\$1,600,000
'129	\$1,600,000
 Cost to Design a New Icon (per Icon)	 \$420
 Cost to Design and Implement a New GUI	 \$1,152
 Trade Dress (Based on New GUI)	 \$1,152
Trade Dress (Device Related)	\$0
 Electronic Device Design Patents	 \$0

531. For the ‘607 Patent, an additional royalty payment would be due for the Galaxy Tab 7.0 (3G), calculated as follows:

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<sup>942</sup> [REDACTED] APLNDC-  
Y0000023361-427 at '386. [3.20]

<sup>943</sup> Schedule 4.1A. [1.2]

<sup>944</sup> Schedule 3.1A. [1.2]

	<u>Units</u>	<u>Royalty Rate</u>	<u>Royalties Due</u>
5/1/10 - 12/31/11			
Galaxy Tab 7.0 (3G)	665,620	\$2.10	\$1,397,802
6/16/11 - 12/31/11			
Galaxy Tab 7.0 (3G)	218,341	\$2.10	\$458,516

**E. Alternative Reasonable Royalty for Electronic Device Design Patents and Trade Dress**

532. As I describe in my analysis of *Georgia-Pacific* factor 9, I have concluded that Samsung has available to it acceptable, non-infringing alternatives for the Electronic Device Design Patents and Apple's asserted trade dress. However, I have also performed an alternative reasonable royalty calculation based on a maximum value for Apple's design.

533. I described in paragraph 338 above how I arrived at an estimate of the value of Apple's designs in total would be one percent of profits in discussing the amount of unjust enrichment due on Apple's design-related IP. In my opinion, the apportioned profit for Apple's asserted design-related IP is appropriate to use as the basis for a reasonable royalty if the fact finder determines that Samsung did not have a design around available.

534. To convert to a royalty rate, I have divided the apportioned profit by the number of smartphone and tablet units to determine a per unit royalty rate. I have calculated the per unit rate to be \$0.60 for Smartphones and \$0.30 for Tablets.<sup>945</sup>

535. Applying these royalty rates to the royalty base of accused units results in reasonable royalties calculated as follows for the relevant time periods:

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<sup>945</sup> Schedule 3.1[1.2]



	<b>Units</b>	<b>Royalty</b>	<b>Royalties Due</b>
		[a]	
<i>5/1/10 - 12/31/11</i>			
Smartphones	17,084,829	\$0.60	\$10,250,897
Tablets	1,145,643	\$0.30	\$343,693
<b>Total</b>	<b>18,230,472</b>		<b>\$10,594,590</b>
<i>4/15/11 - 12/31/11</i>			
Smartphones	9,304,458	\$0.60	\$5,582,675
Tablets	780,734	\$0.30	\$234,220
<b>Total</b>	<b>10,085,192</b>		<b>\$5,816,895</b>
<i>6/16/11 - 12/31/11</i>			
Smartphones	6,084,352	\$0.60	\$3,650,611
Tablets	628,945	\$0.30	\$188,684
<b>Total</b>	<b>6,713,297</b>		<b>\$3,839,295</b>

536. It must be understood that these royalties would not be additive to the unjust enrichment remedy for products that are accused of practicing Apple’s design patents. These are just alternative remedies to collect the same amount of damages. To the extent there are additional products that are accused of infringing either Apple’s asserted trademarks or tradenames then per unit royalty of \$0.60 for Smartphones and \$0.30 for Tablets are a reasonable royalty for those products.

## V. Documents, Data and Other Information Considered

537. Volume 1, Tab 4 contains a complete list of documents I considered in forming my opinions. In addition, I or my staff also had discussions with the following individuals:

- Trevor Darrell, Ph.D., Samsung’s technical expert on the ‘002 and ‘891 Patents
- Jeff Johnson, Samsung’s non-infringement expert on the ‘381 Patent
- Andries Van Dam, Ph.D., Samsung’s invalidity expert on the ‘381 Patent
- Brian Von Herzen, Ph.D., Samsung’s technical expert on the ‘607, ‘129, and ‘828 Patents
- Stephen Gray, Samsung’s technical expert on the ‘915 and ‘163 Patents
- Tim Sheppard, Vice President of Finance and Operations at STA
- Dongyul Choi, Manager, Finance Team, Mobile Business Unit at SEC
- Hoshin Lee, Senior Litigation Counsel, SEC
- Sun-young Yi: Senior Designer at Design Strategy Department at SEC
- Jaewoo Park: Assistant Engineer at Android R&D Group 2 at SEC

- Heonseok Lee: Senior Engineer at Display Lab Group at SEC
- Jong-wook Shim: Associate at Human Resources Group 1 at SEC

## **VI. Potential Additional Analyses to Perform**

538. My opinions are based on the information received as of the date of my report. I plan on updating my damages analysis with the most current sales data produced as of the date of my testimony. I understand that discovery is continuing and I may consider other data produced through discovery to determine whether such other data impact my opinions. I will consider any criticisms of my opinions or bases for my opinions brought to my attention at my deposition or offered by experts retained by Apple. Any of this additional information or work may cause me to change my opinions.

## **VII. Qualifications**

539. Volume 1, Tab 5 contains my curriculum vitae which details my qualifications, including a listing of all my publications and testimony.

## **VIII. Compensation**

540. My current billing rate is \$795 per hour.



Michael J. Wagner