UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

APPLE INC., a California corporation,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD., A Korean business entity; SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company,

Defendants.

Case No. 11-cv-01846-LHK

DECLARATION OF PETER W. BRESSLER, FIDSA, IN SUPPORT OF APPLE'S RESPONSE TO SAMSUNG'S OPENING MEMORANDUM REGARDING DESIGN PATENT CLAIM CONSTRUCTION

SUBMITTED UNDER SEAL

I, Peter W. Bressler, FIDSA, hereby declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

1. I have been retained by counsel for Apple Inc. (Apple) in the above-captioned patent litigation matter against Samsung Electronics Co. Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively, Samsung). I give this declaration in that capacity, and the matters stated herein are of my own personal knowledge or are my professional opinions. If called as a witness, I could and would testify competently as to them.

2. I am currently a product design consultant and an Adjunct Associate Professor in the Integrated Product Design Program at the University of Pennsylvania.

3. My curriculum vitae, which includes a listing of papers, patents, and other materials which I have authored within the last ten (10) years, is attached hereto as **Exhibit 1**. My CV also includes a listing of the cases in which I have testified as an expert at trial or by deposition within the last four (4) years. It also includes a history of the positions that I have held at the national level of the Industrial Designers Society of America (IDSA). Also, it lists my educational background, which includes a Bachelor of Fine Arts degree in Industrial Design from Rhode Island School of Design in 1968.

4. In 2010, I received my profession's highest award, the IDSA Personal Recognition Award, which had been bestowed upon only 25 others in the history of the profession before my receipt of the award.

5. I am the founder and formerly the Board Chair at Bresslergroup, Inc., a design research, strategic product planning, industrial design, product development, and engineering consulting firm. As the founder of Bresslergroup, Inc., I have been involved with over 700 clients and over 3,000 product design and development projects.

6. Several of my projects include industrial designs for telephone handsets for IMM, cell phones for Motorola, video phones for Worldgate, audio products for Polk Audio, tablet computers for Telepad, digital tire gauges for MSI International, and touchscreen video gaming devices for Merit Industries.

7. I have been awarded over 70 United States patents for physical products. These patents are divided roughly equally between utility and design patents, a listing of which is provided in my CV.

8. In order to create attractive and successful designs, an industrial designer must have an understanding of what the consumer will see and appreciate in a particular design. Such an understanding of the ordinary consumer's visual impressions is built up over years of experience in industrial design, and in the process of critiquing, testing, and reiterating one's designs. From my over 40 years of industrial design work and design experience with consumer electronics, I have developed extensive experience regarding how ordinary consumers see, recognize, and understand the industrial design of consumer electronics.

9. Over the course of my career, I have also spent considerable time participating in consumer testing that involves determining consumers' visual understanding of various products, including consumer electronics products.

10. I have also been trained in Synectics, which is a process for facilitating group interaction that encourages the exchange of information, creativity, and innovation. This training has allowed me to more effectively communicate with, and gather information from, consumers in the course of my research.

11. During my career, I have participated in well over one hundred and fifty consumer or user research projects employing a wide range of techniques, including focus groups, consumer preference studies, point of sale observations, ethnographic analyses, personal interviews, mall intercept surveys, and product usability testing. Examples of such projects include:

a. Point of sale observation of mobile phone purchasers;

b. Consumer preference interviews regarding audio speakers at the Consumer Electronics Show;

c. Consumer preference focus groups for selection of DVD camcorder concepts;

d. Hidden and participatory consumer group creativity sessions and preference testing for kitchen appliances; and

e. Ethnographic in-home interviews and observations to provide generative concept development for home office products.

12. There are a number of common elements in my research experience involving consumer electronics designs. First, my work has involved the observation of ordinary consumers as they make visual assessments of consumer electronics designs, including at the point of purchase. Second, it has involved interviewing ordinary consumers on the aesthetic features, visual effects, and visual impressions that they observe and experience in relation to consumer electronics designs. Third, it has involved interviewing ordinary consumers on the aesthetic features, visual effects, and visual impressions that they use to identify, distinguish, and evaluate consumer electronics designs.

13. Through all of these experiences, I have gained an understanding of the level of observation and visual acuity brought to bear by an ordinary consumer when purchasing consumer electronics. I have also gained an understanding of how ordinary observers perceive consumer electronics designs: for example, how strong a visual effect must be before attracting the notice of the ordinary consumer, and how much weight an ordinary consumer gives to strong visual effects or themes when identifying or comparing designs.

II. BACKGROUND

14. I have been asked to provide my opinion with respect to United States Patent Nos. D504,889, D593,087, and 618,677 (the D'889 Patent, D'087 Patent, and D'677 Patent, respectively). Specifically, I have been asked to provide this Declaration to address whether any visual element claimed in the D'889, D'087, and D'677 Patents is dictated by function.

III. MY UNDERSTANDING OF THE LAW

15. I have been informed by Apple's counsel that "[t]o qualify for protection, a design must present an aesthetically pleasing appearance that is not dictated by function alone." *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989).

16. On the other hand, I understand that "[a] design patent is directed to the appearance of an article of manufacture," which "necessarily serves a utilitarian purpose." *L.A. Gear, Inc.*, 988 F.2d at 1123. Notwithstanding the fact that these are articles of manufacture that

serve a utilitarian purpose, I understand that "the design of a useful article is deemed to be functional when the appearance of the claimed design is 'dictated by' the use or purpose of the article." *Id*. (citation omitted). "If the particular design is essential to the use of the article, it cannot be the subject of a design patent." *Id*. I also understand that a design patent may include "ornamental designs of all kinds including surface ornamentation as well as configuration of goods." *In re Zahn*, 617 F.2d 261, 268 (C.C.P.A. 1980)

17. I have been informed by Apple's counsel that, "[i]n determining whether a design is primarily functional or primarily ornamental the claimed design is viewed in its entirety, for the ultimate question is not the functional or decorative aspect of each separate feature, but the overall appearance of the article, in determining whether the claimed design is dictated by the utilitarian purpose of the article." *L.A. Gear, Inc.*, 988 F.2d at 1123. I understand that the fact that an element of a design serves a functional purpose does not mean that the specific design of the element is dictated by functional considerations. *Id*.

18. I understand that a functionality analysis must address "the article in the claimed design," that is, "the article and its configuration as shown in the drawings," rather than "the commercial embodiment of the underlying article of manufacture." *Berry Sterling Corp. v. Prescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997).

19. I further understand that "[a] design is not dictated solely by its function when alternative designs for the article of manufacture are available." *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996) (citation omitted). "When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose." *L.A. Gear*, 988 F.2d at 1123. And "if other designs could produce the same or similar functional capabilities, the design of the article in question is likely ornamental, not functional." *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1378 (Fed. Cir. 2002).

IV. NO ELEMENT OF THE D'889 PATENT IS DICTATED BY FUNCTION

20. It is my experience as a designer that practical considerations such as the physical properties of objects, manufacturing costs and processes, and the intended use of the product, do

not eliminate the potential for innovative industrial design. Although such practical considerations help to focus the work of the designer, they invariably leave significant space for creative and aesthetic design choices. The industrial designer's job is to use practical considerations as a creative springboard to design beautiful and appealing products that perform the functions required of them.

21. In this connection, it is my understanding that Apple considered alternative tablet designs that were different from the D'889 Patent. CAD renderings and photographs of prototypes of some such alternative designs are depicted at APLNDC-Y0000149044-45 and APLNDC-Y0000149048-49, Exhibits 7-9 to the Reply Declaration of Christopher Stringer in Support of Apple's Motion for a Preliminary Injunction (**Exhibits 2-6** attached hereto), and **Exhibits 7-11**.[1] Based on testimony from Apple industrial designers and product designers, it is my understanding that it would have been feasible for Apple to pursue alternative designs to the commercially released version of the iPad or iPad 2, though Apple elected not to do so for aesthetic reasons. (*See, e.g.*, **Bartlett Decl. Ex. 1** (Dec. 1, 2011 Ive Dep.) at 227:12-229:12, 240:11-20; *id*. **Ex. 2** (Aug. 3, 2011 Stringer Dep.) at 98:10-99:8, 162:11-24, 169:4-10, 175:12-21; *id*. **Ex. 3** (Mar. 2, 2012 Tan Dep.) at 74:18-75:11.)

22. Furthermore, numerous alternative designs to the patented D'889 design were and are commercially available. Because these alternative designs were commercially released, they show that the D'889 design is not required for a tablet, and that there are multiple designs for a functioning tablet. Some of these alternative designs are shown below: [2]

[1] Apple Tablet Protos 848, 874, 1051, 1202 & 1216 respectively.

[2] From top row, from left to right: Sony Tablet S, Barnes & Noble Nook Tablet, Coby Kyros, Acer Iconia A500, Sony Tablet P, and Vinci Tablet. (*See* Ex. 12.) These tablets do not constitute an exhaustive list of alternative designs that may be relevant; they are merely representative of some alternatives that have been commercialized.






23. Moreover, the examples of alleged prior art cited by Samsung in its opposition to Apple's Motion for Preliminary Injunction against the D'889 design look very different from that patented design and also constitute alternative designs that could have been used by Samsung without infringing Apple's patented design. For example, JP1142127, JP0887388, JP0921403, U.S. Patent No. D461,802, the TC 1000, and the 1994 Fidler Mock-up are all far afield from the D'889 design aesthetically. (**Exs. 13-18**.)

24. Indeed, Samsung's own commercially released tablet prior to the iPad—the Samsung Q1—constituted an alternative design to the D'889 design. Photos of the Samsung Q1 are shown below. (**Ex. 19**.)

25. Additionally, it is my understanding that Samsung considered alternative designs that were different from the final commercially released designs of its infringing tablets. For example, one of the Samsung tablet models featured a wide, opaque frame on the front surface around the display screen. (*See* **Ex. 20**, Samsung model production no. Tab 30.)

26. The fact that Samsung and other manufacturers have commercially released tablets with alternative, different-looking designs shows that Samsung had access to a variety of design options that would have provided equivalent or similar functionality for the end user. These alternative designs belie any suggestion that utilitarian or functional considerations dictated the design of the D'889 patent or of Samsung's Galaxy Tab 10.1.

27. The alternative designs discussed in the foregoing are in no way comprehensive. The tablet computer field is filled with alternative, commercially viable designs that illustrate the nonfunctionality of Apple's patented design. Other available alternative designs to the D'889 design include, for instance, the Sony Reader, GriDPAD 2050, the Motion Computing LS800, the Freescale smartbook concept, Panasonic Toughbook Tablet, and the Panasonic Toughpad. (*See* **Ex. 12**.)

B. The Individual Elements of the Design in the D'889 are Ornamental Choices, and Not Dictated by Function

28. No visual element of the D'889 patented design is required by the function of a tablet computer. Each element could be and in most cases have been designed to look different from the patented design.

29. For the reasons discussed above and below, it is my opinion that none of the claimed elements of the D'889 is dictated by function alone. Similarly, the counterpart elements of Samsung's Galaxy Tab 10.1 cannot be explained by function alone. If the elements were

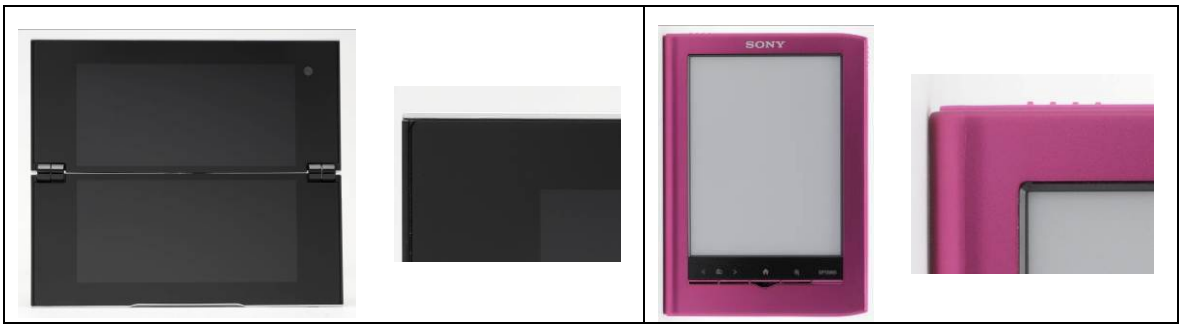
dictated by function alone, Samsung and other manufacturers would be incapable of making a tablet look different from Apple's iPad 2, which is clearly not the case. The availability of so many different design choices, including for touchscreen tablets with the same basic capabilities and features as the iPad 2, confirms my opinion that any alleged function assigned to the individual elements of the D'889 patents is capable of being provided by alternative designs.

1. Tablets Need Not Have a Rectangular Shape

30. Tablets can come in many different shapes. For instance, as described above, the Sony Tablet S has the appearance of a "folded" shape and the Vinci tablet has an octagonal shape. (**Ex. 21**.) Moreover, as described below, smartphones, which often have rectangular display screens, also come in many different non-rectangular shapes. Tablets can also come with a handle, such as the Panasonic Toughbook tablet. (**Ex. 22**.) It can also have a hinged design like the Sony Tablet P, so that the tablet can fold up and close, taking less space in transport. (**Ex. 23**.)

2. The Corners on Tablets Need Not Be a Specified Shape.

31. Many alternative tablet designs with non-rounded corners can function as a tablet. For instance, the Sony Tablet S, pictured below left, has been manufactured with sharper, almost 90 degree corners as viewed from the front. The Sony Reader, pictured below right, also has two corners that appear close to 90 degrees as viewed from the front.



32. Moreover, other alternative designs have other differently shaped corners that are neither round nor sharp and can still perform the functions of a tablet. For instance, as described above, the Vinci tablet, shown below on the left, has chamfered corners and a rubberized "protective ring" to help ensure durability. The Nook tablet, shown below on the right, has a distinctive "loop" at one corner, with the result that it does not have four evenly rounded corners.

And the corners of the Acer Iconia A500 appear much different than the rounded corners of the D'889 design.

33. Moreover, there are alternative ways to increase comfort and ease of use besides rounding corners on a device. For instance, some alternatives designs have a handle, like the Panasonic Toughbook tablet.

34. Furthermore, as described below, there are many other portable electronic devices, such as smartphones, that do not have rounded corners. For example, as discussed below, the Nokia Lumia 800, Xperia Arc S, Nokia X5-01 have sharper, almost 90 degree corners, the Pantech Crossover has "angled corners," and many of Samsung's own phones don't have corners at all. *See infra*. These alternative corner designs further undermine any claim that rounded corners of portable consumer devices are functional.

35. Moreover, at least one Samsung witness testified that the rounded corners of a device are actually disadvantageous as they take away interior space for components. (*See, e.g.*, Bartlett Decl. **Ex. 4** at 38:17-20.)

36. Also, there are numerous iPad, iPad 2 and Galaxy Tab 10.1 covers and cases on the market that increase the comfort, durability, safety, and ease of use of the devices, despite their rounded corners.[3] This further belies any argument that the rounded corners are functional.

3. Tablets Need Not Have a Flat Clear Surface Without Ornamentation

37. Many commercially available tablet designs do not have a flat and clear surface without ornamentation, including Samsung's own tablet computer that was available before Apple's iPad.

38. Samsung's Q1 tablet had a recessed screen surrounded by a raised frame, rather than a flat surface. (**Ex. 19**.) Moreover, the Q1 tablet had an opaque frame with buttons surrounding the display screen instead of a completely clear front surface as in the D'889 design. The Q1 was praised for its "beautiful, featherweight design" with a "sleek case" and that the "[b]uttons around the screen also help [the user] navigate."[4] Many users prefer physical buttons as they provide tactile feedback.

39. Furthermore, many other third-party tablet devices have an opaque frame surrounding the display and thus do not have a completely clear front surface. For instance, the Nook tablet has a gray opaque frame that has a "textured finish" that makes it "feel a little better in your hand."[5] Likewise, the Coby Kyros has an opaque plastic housing that makes the device "sturdy."[6] (**Ex. 24**.) The Acer Iconia A500 also has a distinctive opaque aluminum casing that wraps around to the front surface. (**Ex. 25**.)

40. The border around the screen shown in the D'889 is also not functional. To the extent the border is used to hide components and wiring, this is an aesthetic—not a functional—

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[3] **Ex. 26** (http://store.apple.com/us/browse/home/shop_ipad/ipad_accessories/cases; see also http://www.samsung.com/us/mobile/galaxy-tab-accessories#container) (APLNDC-Y0000238871-74).

[4] **Ex. 27** (CNET, "Samsung Q1 Ultramobile PC," http://reviews.cnet.com/laptops/samsung-q1-ultramobile-pc/4505-3121_7-31781057.html#reviewPage1).

[5] **Ex. 28** (CNET, "Barnes & Noble Nook Tablet," http://reviews.cnet.com/tablets/barnes-noble-nook-tablet/4505-3126_7-35059751.html#reviewPage1).

[6] **Ex. 29** (William Harrel, "Coby Kyros Internet 8" Touch Screen Tablet Review & Ratings," Computer Shopper, http://computershopper.com/tablets/reviews/coby-kyros-internet-8-touchscreen-tablet-mid8024/%28page%29/).

consideration. Circuitry does not need to be hidden for the device to function. The border also does not have to be uniform as in the D'889 design. For example, borders surrounding the screen in alternative designs, such as the Iconia A500 and Nook, are not of uniform width, as shown below.

4. Tablets Need Not Have a Rim Around the Front Surface

41. Not all rims have to look the same. In fact, Samsung's own witness Jung Min Yeo confirmed that a thick rim would be more functional as it would be more protective of the screen than a thin rim. (*See* Bartlett Decl. **Ex. 4** at 46:1-3.)

42. Moreover, many of the commercially available alternative designs do not have a rim like the D'889 design. For instance, the Nook tablet, Iconia A500, Sony Table S are examples of commercially available tablets that forego any rim surrounding the front surface. (**Exs. 21, 25, 30**.)

5. Tablets Need Not Be Thin to Be Portable

43. Not all tablets need to be thin to be mobile or portable. Alternate features, such as the Panasonic Toughbooks's handle or the Sony Tablet P's ability to fold, can facilitate mobility and portability. (**Exs. 22-23**.)

44. Accordingly, I conclude that there are no elements in the design of the D'889 Patent that are dictated by the function.

C. The Individual Elements of the D'087 and D'677 Designs Are Ornamental Choices, and Not Dictated by Function

1. D'087 Patent

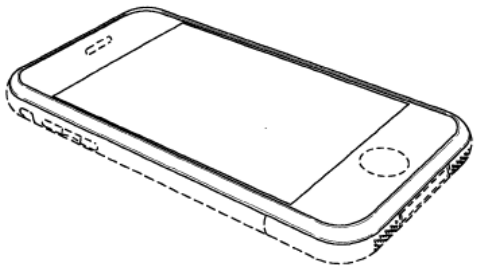


FIG. 9

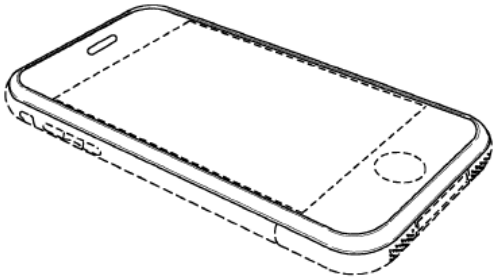


FIG. 17

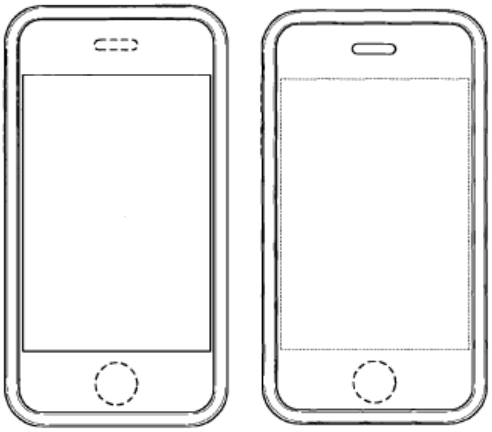


FIG. 11

FIG. 19

FIG. 7

FIG. 8

FIG. 5

FIG. 6

45. It is my understanding that Apple considered alternative designs that were different from the final commercially released design of the iPhone, a design which is embodied in the D'087 Patent. CAD renderings and photographs of prototypes of some such alternative designs are at APLNDC-Y0000149051-052, 059 & 062, in Exhibits 1-6 to the Reply Declaration of Christopher Stringer in Support of Apple's Motion for a Preliminary Injunction (attached hereto as **Exs. 31-37**), and **Exhibits 72-77**.[7] Based on testimony from Apple industrial designers and product designers, it is my understanding that it would have been feasible for Apple to pursue

[7] Apple Protos 355, 363, 383, 399, 834, 1105 respectively.

these alternatives, though Apple elected not to do so for aesthetic reasons. (*See, e.g.*, Bartlett Decl. **Ex. 1** at 38:23-41:8; 44:20-46:14; 63:21-66:4; 227:12-229:12; 240:21-20; *id*. **Ex. 5** at 292:8-25; 302:24-303:24; *id*. **Ex. 2** at 183:23-184:5; 207:25-208:19; 323:21-324:21; *id*. **Ex. 6** at 18:14-23; 20:1-7; 78:15-22; *id*. **Ex. 3** at 20:15-24:14; 28:4-30: 22; 56:10-61:18; 64:9-65:20; 74:18-75:1, *id*. **Ex. 7** at 35:3-36:1.)

46. Furthermore, numerous alternative designs to the patented D'087 design were and are commercially available. Because these alternative designs were commercially released, they show that the D'087 design is not required for a smartphone, and that multiple alternative designs are available for a functioning smartphone. Some of these alternative designs are shown below:[8]

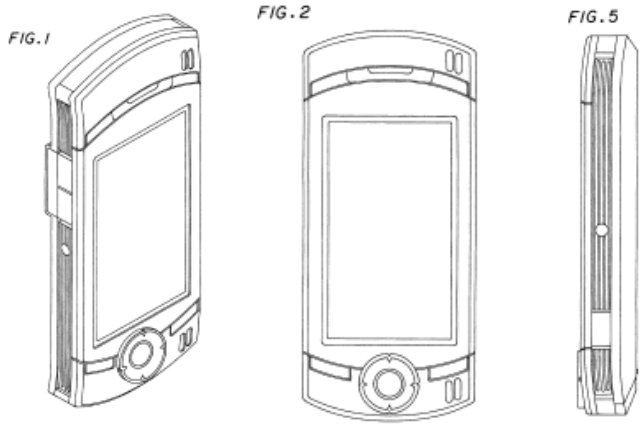
47. Indeed, many of Samsung's own commercially released phones are themselves alternative designs to the patented D'087 design. Samsung alternative designs include, for instance, the following: [9]

[8] From left to right: Sony Ericsson Xperia Arc S; Pantech Crossover; Nokia Lumia 800; Casio G'zOne Commando LG Optimus T. *See* **Ex. 38**. These phones do not constitute an exhaustive list of alternative designs that may be relevant; they are merely representative of some alternatives that have been commercialized.

[9] From left to right: Samsung i8910 Omnia HD (released May 2009); Samsung M7600 Beat DJ (released May 2009); Samsung Sunburst SGH-A697 (released March 2010); Samsung Gravity Touch SGH-T669 (released June 2010); Samsung Gem SCH-I100 (released February 2011). *See* **Ex. 38**]. These phones do not constitute an exhaustive list of Samsung's alternative designs that may be relevant; they are merely representative of some alternatives that Samsung has commercialized.

48. Additionally, it is my understanding that Samsung considered alternative designs that were different from the final commercially released designs of its infringing phones. Such alternative designs are depicted in Exhibits **39-40**. These alternatives illustrate, for example: a curved, clear material on the front surface of the phone (for example, **Ex. 39**, Samsung model production No. 38); a display screen that is not centered on the front surface of the phone (*Id.*); a drastically non-uniform and stylized bezel (*Id.*); and a front surface that is not entirely covered with a clear material (**Ex. 40**, Samsung model production No. 9.6.3).

49. Samsung itself has applied for and received design patents on the ornamental design for its phones that look different from the iPhone. Samsung's own design patents undercut any contention that smartphone design (or more specifically, touch-screen smartphone design) is restricted by function to the iPhone design. For example, U.S. D555,131 to Samsung claims a phone design with a large display screen. (**Ex. 41**..) But the D'131 design, as shown below, also has curved top and bottom sides, angled corners, adornments on the front face, and numerous other differences from Apple's iconic iPhone design.



50. Other Samsung design patents similarly illustrate the design alternatives available to Samsung for every feature of a phone, including U.S. Patent Nos. D561,156, D616,857, D561,155, D562,794, D624,046, D616,856, and D629,780.[10] (**Exs.42-46**.)

2. D'677 Patent

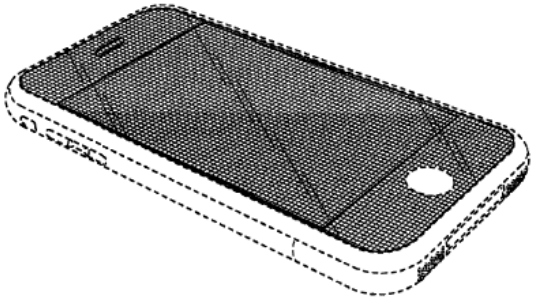


FIG. 1

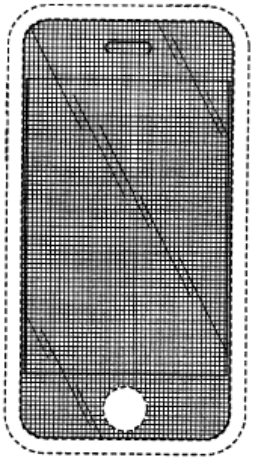


FIG. 3

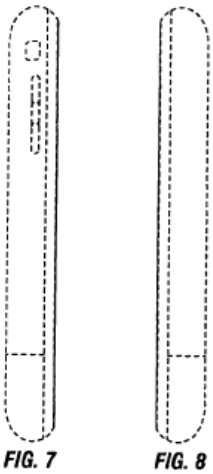


FIG. 7 FIG. 8

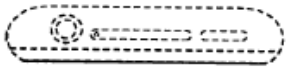


FIG. 5

FIG. 6

[10] APLNDC-Y0000232341; -346; -351; -358; -365; -374; -389.

51. As in the case of the D'087 Patent, it is my understanding that Apple considered alternative designs that were different from the final commercially released design for the iPhone, a design which is embodied in the D'677 Patent. Based on testimony from Apple industrial designers and product designers, it is my understanding that it would have been feasible for Apple to pursue these alternatives, though Apple elected not to do so for aesthetic reasons. *See supra*.

52. Further, numerous alternative designs to the patented D'677 design were and are commercially available. Because these alternative designs were commercially released, they show that the D'677 design is not required for a smartphone, and that there multiple alternative designs exist for a functioning smartphone. Some of these alternative designs are shown below:[11]

53. Indeed, many of Samsung's own commercially released phones are themselves alternative designs to the patented D'677 design. Samsung alternative designs include, for instance, the following: [12]

[11] From left to right: Sony Ericsson Xperia Arc S; Pantech Crossover; Nokia Lumia 800; Casio G'zOne Commando LG Optimus T. *See* **Ex. 38**. These phones do not constitute an exhaustive list of alternative designs that may be relevant; they are merely representative of some alternatives that have been commercialized.

[12] From left to right: Samsung i8910 Omnia HD (released May 2009); Samsung M7600 Beat DJ (released May 2009); Samsung Sunburst SGH-A697 (released March 2010); Samsung Gravity Touch SGH-T669 (released June 2010); Samsung Gem SCH-I100 (released February 2011). *See* **Ex. 38**. These phones do not constitute an exhaustive list of Samsung's alternative designs that may be relevant; they are merely representative of some alternatives that Samsung has commercialized.

54. Moreover, Samsung itself has produced a number of designs with white-colored front surfaces, such as a white version of its Galaxy Ace, S II, and Galaxy Note. (**Exs. 47-49**.)

55. Additionally, it is my understanding that Samsung considered alternative designs that were different from the final commercially released designs of its infringing phones. Such alternative designs are depicted in Exhibits **39-40**. These alternatives illustrate, for example: a curved, clear material on the front surface of the phone (for example, **Ex. 39**, Samsung model production No. 38); a display screen that is not centered on the front surface of the phone (*Id.*); and a front surface that is not entirely covered with a clear material (**Ex. 40**, Samsung model production No. 9.6.3).

56. Moreover, as described above, Samsung itself has applied for and received design patents on the ornamental design for its phones, which are alternatives to the D'677 design. *See supra*.

57. The alternative designs discussed in the foregoing are in no way comprehensive. The smartphone field is filled with alternative, commercially viable designs that illustrate the nonfunctionality of Apple's patented design. Other designs that illustrate alternative renderings of individual design elements include HTC Touch Dual, T-Mobile My-Touch, Palm Treo 700p, HTC 7 Trophy T8686, Sony Ericsson Xperia S, Pantech Hotshot CDM8992VW, Modu 1 and associated jackets, Modu T and associated jackets, Modu W, and Nokia X5-01. These designs illustrate the vast array of design choices Samsung possessed with respect to every design

element of its phones and undercut any contention that utilitarian or functional considerations dictated the iPhone design or Samsung's infringing designs. (*See* **Ex. 38**.)

58. The fact that Samsung and other manufacturers have commercially released phones with different-looking, alternative designs shows that Samsung had numerous design options for offering equivalent or similar functionality for the end user. These alternative designs belie any suggestion that functional considerations dictated the iPhone design or the design of Samsung's accused phones.

3. The Individual Elements of the Designs in the D'677 and D'087 Patents are Not Dictated by Function

59. No visual element of the D'677 and D'087 designs is required by the function of an electronic device or smartphone.

60. For the reasons discussed above and below, it is my opinion that none of the claimed elements of the D'677 and D'087 patents is dictated by function alone. Similarly, the counterpart elements of Samsung's accused devices cannot be explained by function alone. If the elements were dictated by function alone, Samsung and other smartphone manufacturers would be incapable of making a smartphone look different from Apple's iPhone, which is clearly not the case. The availability of so many different design choices, including for touchscreen smartphones with the same basic capabilities and features as the iPhone, confirms my opinion that any alleged function assigned to the individual elements of the D'677and D'087 patents is capable of being provided by alternative designs.

a. The Front Surface of a Smartphone or Media Player Need Not Be Completely Flat or Completely Transparent

61. Smartphone or media player designers have many design choices for the front surface of a smartphone other than a completely flat transparent front surface. For instance, at least the G'zOne Commando and Optimus T have raised protective surroundings around the display screen such that the front surface is not completely flat or completely transparent. (**Exs. 50-51**.)


62. The Xperia Arc S and Samsung's Omnia HD, Gravity Touch, and Gem also implement capacitive touchscreens. (**Exs. 52-55**.) Yet, each of these phones has buttons protruding from the front surface or otherwise lacks a completely transparent front surface.


63. Indeed, having a completely flat front surface negates the possibility of having tactile protruding "hard" buttons like those shown above. As noted above, "hard" buttons may actually increase the functionality of smartphones or media player for some users because they provide immediate tactile feedback to the user.

64. Moreover, the LG Chocolate and LG Prada are examples of the many alternative designs to the D'677 and D'087 designs. Among other differences, neither phone has a completely flat transparent front surface. (**Exs. 56-57**.)

65. Other touchscreen smartphones, such as the Nokia Lumia 800, Nokia N8, and the LG Optimus T, have portions of the front surface surrounding the screen that are sloped such that the front surface is not completely flat. (See below from left.)





66. In fact, one way to manufacture a phone to conform to the shape of the human face would be to have an "angled chin," like that in the HTC Hero, shown below. [13] The HTC Hero's "angled chin" "makes holding the phone . . . more straightforward"[14] and "shapes quite naturally and comfortably around [the user's] face while talking."[15]

67. Furthermore, it is my understanding based on the testimony of Apple product designers and my review of documents obtained from Apple product designers that there were

[13] **Ex. 58** (http://www.gsmarena.com/htc_hero-pictures-2861.php (APLNDC-Y0000238769-71).)

[14] **Ex. 59-60** (Chris Davies, "HTC Hero review," Slashgear, July 21, 2009, http://www.slashgear.com/htc-hero-review-2149880/ (APLNDC-Y0000238583-613, APLNDC-Y0000238772-84).)

[15] **Ex. 61-62** (GSMArena, HTC Hero Review: Born to Rise, August 6, 2009, http://www.gsmarena.com/htc_hero-review-382p2.php (APLNDC-Y0000238759-63, APLNDC-Y0000238786-89).)

particular challenges for Apple in pursuing the industrial design of a flat clear surface covering the entire front of the iPhone. (Bartlett Decl. **Ex. 2** at 101:3-8; *id*. **Ex. 9**; *id*. **Ex. 10**; *id*. **Ex. 11**; *id*. **Ex. 12**.) In order to achieve its design objectives, for example, Apple product designers worked with manufacturers to develop a new cover glass that had to be chemically strengthened in order to provide the desired transparency and thinness expected by the industrial designers. (Bartlett Decl. **Ex. 9**; **Ex. 10**.) Apple's flat clear surface design also required the design of unique manufacturing tools and testing requirements. (Bartlett Decl. **Ex. 11**; Bartlett Decl. **Ex. 12**.)

68. Moreover, because the iPhone, as embodied in the D'677 patent, has a fully transparent front surface, it was difficult to drill holes in the transparent glass surface for the speaker slot and the home button, especially where these holes were located near the edges of the glass surface. According to Apple product designers, drilling the speaker slot on the transparent surface of the iPhone posed technical challenges. (*See* Bartlett Decl. **Ex. 8** at 108:18-110:6.) It would have been easier if the front surface was not fully transparent, so that holes for the speaker slot could be made in the non-transparent surface. Examples of smartphones with the speaker slot drilled in non-transparent portions of the front surface include the Lumia 800, Xperia Arc S and the Samsung I700. (**Exs. 52, 63-64.)**

69. Industry commentators predicted that the edge-to-edge transparent front surface of the iPhone would lead to "cracked screens," such that the iPhone would be a failure.[16] A completely flat front surface, rather than one that is recessed and surrounded by a raised frame or housing, is also more prone to scratches and breakage upon impact.

70. Accordingly, it is my opinion that the flat, transparent front surface of a smartphone is not dictated by function.

[16] **Ex. 65** (Seth Porges, "The Futurist: We Predict the iPhone Will Bomb," TechCrunch, June 7, 2007, http://techcrunch.com/2007/06/07/the-futurist-we-predict-the-iphone-will-bomb/.)

b. The Corners on a Smartphone or Media Player Need Not Be a Specified Shape

71. A number of commercially released smartphone designs have been manufactured with sharper, almost 90 degree corners as viewed from the front, for example, Lumia 800, the Xperia Arc S, Xperia X10, Xperia Mini X10, and the Nokia X5-01, as shown below.

72. These phones have received positive industry reviews with respect to their comfort. For instance, as mentioned above, the Nokia Lumia 800 design has been praised on the ground that "[i]t's natural and pleasant to the touch, with great ergonomics and weight balance—the diametric opposite of the cold and impersonal appearance of most modern technology."[17] Others have commented that the Lumia 800 "is a dream to observe and handle, with its smooth curves fitting snugly to the hand."[18] Likewise, the Xperia Arc S has been described as "surprisingly comfortable" [19] and that a user can wrap their hands "around the phone comfortably."[20] The Nokia X5-01 has a "comfy hold."[21] Hence, there are ways to execute a

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[17] **Ex. 66** (Vlad Savov, "Nokia Lumia 800 Review," The Verge, Nov. 3, 2011, http://www.theverge.com/2011/11/3/2534861/nokia-lumia-800-review.)

[18] **Ex. 67** (TechRadar, "Nokia Lumia 800 Review," Mar. 8, 2012, http://www.techradar.com/reviews/phones/mobile-phones/nokia-lumia-800-1039101/review.)

[19] **Ex. 68** (TheTechTonic.com, Sony Ericsson Xperia Arc S Review, http://www.thetechtonic.com/sony-ericsson-xperia-arc-s-review.html.)

[20] **Ex. 69** (CNET, Sony Ericsson Xperia Arc S, http://reviews.cnet.com/smartphones/sony-ericsson-xperia-arc/4505-6452_7-35026937.html#reviewPage1.)

[21] **Ex. 70** (GSMArena, Nokia X5-01 Review: Round the Square, Nov. 1, 2010, http://www.gsmarena.com/nokia_x5_01-review-529.php.)

design with sharper corners as viewed from the front that still provide an acceptable level of comfort, durability, and ease of manufacture.

73. Furthermore, many other alternative designs do not have either round or sharp corners. For example, the Pantech Crossover, as shown below, is designed with "angled" corners and has been praised on the ground that the angled corners actually improve comfort. As mentioned above, reviewers have commented that the "angled" corners "actually make[] a huge difference, offering more places to easily grip the phone,"[22] and that the phone "feel[s] like it naturally belongs nestled in the palm of [one's] hand."[23]

74. Many of Samsung's own smartphones also do not have corners at all, let alone rounded corners. For instance, the top and bottom sides of the Samsung's Sunburst, Beat DJ and Gravity Touch, as shown below, are rounded to such a degree that no discernable corners exist.

[22] **Ex. 71** (Brad Molen, "Pantech Crossover Review," Engadget, June 7, 2011, http://mobile.engadget.com/2011/06/07/pantech-crossover-review/.)

[23] *Id.*

75. Indeed, Samsung's Minhyouk Lee testified to various design possibilities for the corners of its smartphones. (*See* Bartlett Decl. **Ex. 13** at 20:20-22:13.)

76. Based on testimony of Apple product designers, it is my understanding that there were manufacturing challenges associated with the splined (i.e., curved) surfaces of the iPhone design. (Bartlett Decl. **Ex. 3** at 56:10-61:18.)

77. Accordingly, it is my opinion that the rounded corners of a smartphone or media player are not dictated by function.

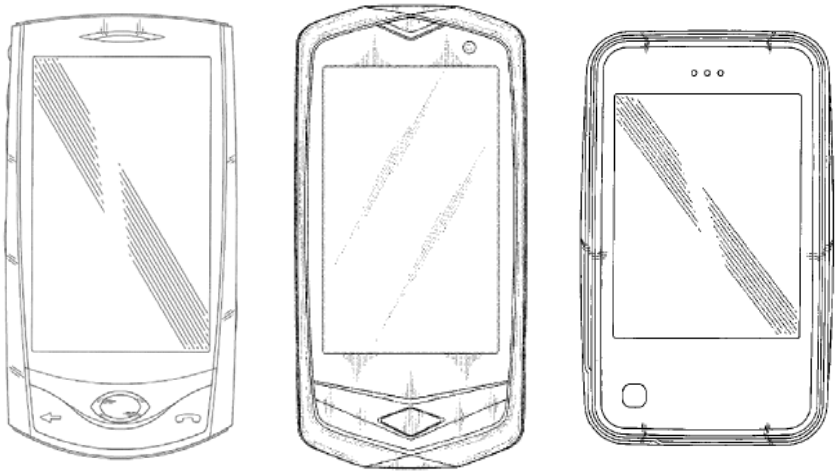
c. The Display Screen on a Smartphone or Media Player Need Not Be an Elongated Rectangle

78. Many commercialized smartphones have screens that are differently shaped than the iPhone's display. For example, the display screens of the Nokia X5-01 and the Palm Centro (shown below).

d. The Display Screen on a Smartphone or Media Player Need Not Be Centered

79. It is clear from alternative commercialized phones that do not have a centered display screen, such as Samsung's Sunburst, Sony Xperia X10 mini, LG Optimus T and LG Thrive (shown below), that a centered display screen is not a functional requirement for a smartphone.

80. Indeed, Samsung's designer GiYoung Lee admitted that a functioning touchscreen phone need not have a display screen that is centered on the front surface. (Bartlett Decl. **Ex. 14** at 113:18-114:5.) Moreover, many of Samsung's own design patents show designs for smartphones that do not have centered display screens. For instance, D616,857, D624,046 and D629,780, illustrated below, all show Samsung patented designs for mobile phones with display screens that are vertically off-center.



e. Borders Need Not Be Narrow on the Sides of the Display and Wider Above and Below

81. The variation in proportion of the lateral borders to the borders above and below the display screen makes clear that none of these alleged functions dictate the specific design of the borders depicted in the D'677, D'087 or D'270 patents. For example, the LG Chocolate (left) and Samsung Replenish (right) have relatively wide lateral borders.

82. Furthermore, the borders surrounding the screen need not be rectangular, as they are in the D'677 and D'087 patents. In fact, smartphones such as Samsung's DJ Beat and Sunburst (below) make clear that other shapes can be used to surround a rectangular screen. The borders on the front face of a smartphone present the designer with an aesthetic choice—how to cover up interior elements of the phone—that can be addressed in a wide variety of ways, such as through masks (in differing shapes and sizes) or opaque frames.

f. The Speaker Slot on a Smartphone Need Not be Lozenge-Shaped

83. The shape of the speaker slot is not dictated by function because "some options exist for styling the [speaker slot] and selecting its length and width." (Bartlett Decl. **Ex. 15** at 101.) Although this admission is sufficient to establish that the shape of the speaker slot in the D'677 and D'087 patented design is not dictated by function, the alternative designs for speaker slots are numerous.

84. For example, Samsung's own alternative speaker slot shapes belie the functionality of a lozenge-shaped speaker slot. For instance, the Gravity Touch has a speaker slot comprised of a series of holes in a rectangular shape that forms a part of a wide arch that spans nearly the entire width of the phone. Samsung's Gem has a speaker slot that is generally triangular shape, and the Samsung Beat DJ has a speaker slot that is curved. The Samsung I700 had an oval shaped speaker slot covered by another element. (See below, clockwise from upper left.)

85. Third-party phones also show alternative designs for functioning speaker slots. For instance, Sony Ericsson's Xperia Arc S has an asymmetrical speaker slot that is narrower on one side and wider on the other, and the Casio G'zOne Commando has a vertically oriented rectangular speaker slot (visible in the red portion of the phone depicted below). The HTC MyTouch 4G phone has a speaker slot that appears to have three compartments. The HTC Touch

Dual has a speaker slot shaped like a rounded square. The Xperia X10 has speaker slot shaped almost like a semi-circle, and the Blackberry 8700g's speaker slot is a row of three dots. (See below.)

86. Speaker slots need not have rounded edges. Commercial smartphones, such as the Pantech Crossover, do not have speaker slots that are rounded (see below). This belies any argument that a rounded lozenge-shaped speaker slot of the D'677 and D'087 patents is dictated by function.

g. The Speaker Slot on a Smartphone Need Not Be Centered Above the Display Screen

87. At least one of Samsung's own designers has confirmed that there are many options regarding the "vertical placement of the earpiece slot." Giyoung Lee testified that there is no reason why the speaker slot cannot be shifted in position along the vertical axis. (Bartlett

Decl. **Ex. 14** at 102:9-23.) Others have testified that the speaker slot position is "flexible and fluid." (Bartlett Decl. **Ex. 13** at 54:10-25; 59:5-11.)

88. Indeed, alternative designs including Samsung's own Gem smartphone, show that the speaker slot need not be vertically centered. The speaker slots of the HTC MyTouch 4G phone and the Gem are aligned closer to the top edge.

89. Also, based on designs used in commercially released phones, horizontal centering is also not necessary for smartphones. For instance, the Xperia Arc S has a speaker slot that is not horizontally centered above the display screen.

h. Smartphones Need Not Have a Bezel or the Bezel Can be Shaped Very Differently from the Bezel Depicted in the D'087 Patent

90. The bezel appearing in the D'087 design clearly plays an ornamental role. Mr. Sherman concedes that there are certain smartphone designs in which "a bezel is not required" and that even where a bezel is used, the "details [of the bezel] could be an ornamental choice." (Bartlett Decl. **Ex. 15** at 102.) Thus, Mr. Sherman appears to agree that the inclusion of a bezel in the D'087 patented design is not dictated by function, nor is the appearance of the bezel that Apple's designers chose to include in the D'087 design. Indeed, Samsung designers admitted that a bezel can be designed to look different and still serve a protective function. (Bartlett Decl. **Ex. 14** at 113.18-114:5; **Ex. 13** at 35:6-14.)

91. This conclusion is strengthened by the number of smartphone designs, including the Nokia Lumia 800, Sony Ericsson Xperia Arc S, and even Apple's iPhone 4, that are alternative designs to a design with a bezel as claimed in the D'087 patent. (See below from left.)

92. Moreover, the bezel can come in a wide variety of shapes and sizes, such as that in the Pantech Crossover, the Casio G'zOne Commando, the LG Optimus T, and the LG Thrive. These are all functional alternative designs to the D'087 design.

i. A Smartphone Need Not Have a Black Surface Like the D'677 Patent

93. Smartphones, including Samsung's own phones, can come in a variety of different colors.[24]

[24] From right to left: LG Chocolate; Bluebird Pidion; Nokia X05. Bottom row: Nokia N8 from http://events.nokia.com/nokian8/home.html

94. Indeed, Apple's iPhone comes in a white version and Samsung's Galaxy S II line of phones comes in white versions.[25].

95. A gray or silver colored surface, as in Samsung's Sunburst or i700 phones and the LG Thrive (below), are also frequently used.

[25] http://www.samsung.com/us/mobile/cell-phones/SPH-D710ZWASPR.

96. Accordingly, I conclude that there is no element in the design of the D'087 Patent that is dictated by function.

97. Accordingly, I conclude that there is no element in the design of the D'677 Patent that is dictated by function.

Dated: June 26, 2012

/s/ *Peter W. Bressler*
Peter W. Bressler

ATTESTATION

I, Michael A. Jacobs, am the ECF User whose ID and password are being used to file this Declaration. In compliance with General Order 45, X.B., I hereby attest that Peter W. Bressler has concurred in this filing.

Dated: June 26, 2012

/s/ Michael A. Jacobs
Michael A. Jacobs