

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

Plaintiff Apple, Inc. (“Apple”) filed a motion for summary judgment against Defendants and Counterclaimants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively “Samsung”) on May 17, 2012 (“MSJ”). Samsung filed its opposition on May 31, 2012 (“Opp’n”). Apple filed its reply on June 7, 2012 (“Reply”). The Court held a hearing on June 21, 2012. The pretrial conference in this matter is set for July 18, 2012; the trial will begin on July 30, 2012. Because the parties require a ruling on this motion on an expedited basis, the Court will keep its analysis brief.

In order to prepare this case for trial on July 30, 2012, the parties stipulated to dismiss many of the claims originally asserted in the complaint, counterclaims, and counterclaims in reply. Apple moves for summary judgment on four of Samsung's claims covering 3 patents. Apple moves for summary judgment on the following claims: (1) noninfringement of claims 25 and 26 of United States Patent No. 7,362,867 ("the '867 Patent"); (2) invalidity of claims 10 and 12 of United States Patent No. 7,456,893 ("the '893 Patent"); and (3) invalidity of claim 1 of United States Patent No. 7,577,460 ("the '460 Patent"). After hearing oral argument on the matter, and reviewing the briefing by the parties, the evidence offered in support of the briefing, and the relevant case law, the Court GRANTS in part and DENIES in part Apple's motion for summary judgment. Each of Apple's arguments challenging Samsung's claims is addressed in turn below.

I. LEGAL STANDARD

Under Federal Rule of Civil Procedure 56(a), "the court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Material facts are those that may affect the outcome of the case. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A dispute as to a material fact is "genuine" if the evidence is such that "a reasonable jury could return a verdict for the nonmoving party." *See id.* "[I]n ruling on a motion for summary judgment, the judge must view the evidence presented through the prism of the substantive evidentiary burden." *Id.* at 254. The question is "whether a jury could reasonably find either that the [moving party] proved his case by the quality and quantity of evidence required by the governing law or that he did not." *Id.* "[A]ll justifiable inferences must be drawn in [the nonmovant's] favor." *See United Steelworkers of Am. v. Phelps Dodge Corp.*, 865 F.2d 1539, 1542 (9th Cir. 1989) (en banc) (citing *Liberty Lobby*, 477 U.S. at 255).

The moving party bears the initial responsibility for informing the district court of the basis for its motion and identifying those portions of the pleadings, depositions, interrogatory answers, admissions and affidavits, if any, that it contends demonstrate the absence of a genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). A party opposing a properly supported motion for summary judgment "may not rest upon the mere allegations or denials of

[that] party's pleading, but . . . must set forth specific facts showing that there is a genuine issue for trial." *See* Fed. R. Civ. P. 56(e); *see also Liberty Lobby*, 477 U.S. at 250. The opposing party need not show the issue will be resolved conclusively in its favor. *See Liberty Lobby*, 477 U.S. at 248–49. All that is necessary is submission of sufficient evidence to create a material factual dispute, thereby requiring a jury or judge to resolve the parties' differing versions at trial. *See id.*

II. DISCUSSION

A. Non-Infringement of the '867 Patent

The '867 Patent, entitled "Apparatus and Method for Generating Scrambling Code in UMTS Mobile Communications System" was filed on July 7, 2000, and issued on April 22, 2008. The '867 Patent is directed to an electronic system and method for generating "primary scrambling codes" used to distinguish base stations transmitting in a mobile communication network. *See* '867 Patent Abstract; 1:48-52. Without such a differentiating mechanism, cellular communications systems would be unable to function due to the high density of cellular base stations and mobile devices transmitting and receiving data within a given area. *See* Expert Report of Richard Wesel ("Wesel Report") ¶ 29-32.

The '867 system relies on a particular class of mathematical sequences, known as Gold sequences, to serve as the primary scrambling codes. '867 Patent 16:6-9. These Gold sequences are derived from other mathematical sequences known as m-sequences. *Id.* In particular, a Gold sequence is formed by summing a shifted version of one m-sequence with another m-sequence. *Id.* The number of times that the first m-sequence is shifted uniquely specifies the resulting Gold sequence (up to the number of elements in the sequence), allowing for generation of multiple Gold sequences by varying the number of shifts applied to the first m-sequence. *Id.*

Samsung accuses Apple's iPhones and iPads that include baseband processors of infringing claims 25 and 26 of the '867 Patent because these phones generate Gold codes in the manner described by the asserted claims. Wesel Report ¶ 55-69. The accused devices do not, however, directly apply those Gold codes to the data in the scrambling process. *See* Opp'n at 5. Independent claim 25 of the '867 Patent recites:

1 An apparatus for generating scrambling codes in mobile communication system
 2 having a scrambling code generator, comprising:

3 a first m-sequence generator to generate a first m-sequence;
 4 a second m-sequence generator to generate a second m-sequence; and
 5 at least one adder for generating a $((K-1)*M+K)^{th}$ Gold code as a K^{th}
 6 primary scrambling code by adding a $((K-1)*M+K-1)$ -times shifted
 7 first m-sequence and the second m-sequence,
 8 wherein K is a natural number and M is a total number of secondary
 9 scrambling codes per one primary scrambling code.

10 '867 Patent, 15:65-16:12. Dependent claim 26 (which depends from claim 25) of the '867
 11 Patent recites:

12 The apparatus of claim 25, wherein the secondary scrambling codes of the K^{th}
 13 primary scrambling codes are the $((K-1)*M+K+1)^{th}$ through $(K*M+K)^{th}$ Gold
 14 codes.

15 '867 Patent, 16:13-15.

16 Apple moves for summary judgment of non-infringement of the '867 Patent. Summary
 17 judgment of non-infringement is a two-step analysis. "First, the claims of the patent must be
 18 construed to determine their scope. Second, a determination must be made as to whether the
 19 properly construed claims read on the accused device." *Pitney Bowes, Inc. v. Hewlett-Packard*
 20 *Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999) (internal citation omitted). "[S]ummary judgment of
 21 non-infringement can only be granted if, after viewing the alleged facts in the light most favorable
 22 to the non-movant, there is no genuine issue whether the accused device is encompassed by the
 23 claims." *Id.* at 1304.

24 1. Claim Construction

25 The center of the parties' dispute is the third limitation of claims 25 and 26. Claims 25 and
 26 26 each require "at least one adder for generating a $((K-1)*M+K)^{th}$ Gold code as a K^{th} primary
 27 scrambling code by adding a $((K-1)*M+K-1)$ -times shifted first m-sequence and the second m-
 28 sequence." '867 Patent 16:5-8. Although the parties have not asked for claim construction, it is
 clear that they disagree as to the meaning of the phrase "a $((K-1)*M+K)^{th}$ Gold code as a K^{th}
 primary scrambling code," and in particular the meaning of the term "scrambling code." *See* Mot.
 at 10-11; Opp'n at 2-3. Samsung argues that "scrambling code" should be defined as any code
 "generated by adding a first m-sequence and a second m-sequence." Opp'n at 3. Accordingly,

Samsung reads the disputed claim as applying to a “Gold code *generated by adding a first m-sequence and a second m-sequence*,” which includes the accused products. Apple, however, argues that “scrambling code” should be defined as “a code that is actually used to scramble data.” See Reply at 1. Under Apple’s construction, the claim term requires that the Gold code must be used to scramble data. Based on Apple’s proposed construction, Apple argues that the accused products do not infringe because the Gold codes in the accused devices do not scramble data. In light of this dispute, this Court will now construe the disputed term. See *Network Commerce, Inc. v. Microsoft*, 422 F.3d 1353, 1363-64 (Fed. Cir. 2005) (“There is no requirement that the district court construe the claims at any particular time.”).

a. Claim Language

In this case, the plain meaning of the claim language, as well as the supporting intrinsic and extrinsic evidence, support Apple’s construction. First, the claim language is inconsistent with Samsung’s construction. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’”) (internal quotations and citations omitted). The plain language of the claim supports Apple’s position. By reciting that the apparatus generates “a . . . Gold code as a . . . primary scrambling code,” the plain language suggests the gold code that is generated must actually be a primary scrambling code. The plain language also suggests that a gold code is a different concept from a primary scrambling code.

In contrast, applying Samsung’s proposed definition creates an awkward and circular construction. Inserting Samsung’s construction into the disputed language, the term reads “at least one adder for generating a . . . Gold code as a . . . primary *code generated by adding a first m-sequence and a second m-sequence* by adding a . . . shifted first m-sequence and the second m-sequence.” Not only would such a construction render the latter part of the claim redundant, but it would also give no effect to the word “primary.” Similarly, under Samsung’s construction, claim 26 would read: “The apparatus of claim 25, wherein the secondary *codes generated by adding a first m-sequence and a second m-sequence* of the K^{th} primary *codes generated by adding a first m-sequence and a second m-sequence* are the $((K+1)*M+K+1)^{th}$ through $(K*M+K)^{th}$ Gold codes.”

This claim is even more nonsensical, as the labels “secondary” and “primary” are rendered meaningless in the abstract context of codes generated in the specified manner. Apple’s construction, by contrast, is both non-redundant and consistent with the notion of primary and secondary scrambling codes serving different roles in data transmission.

b. Specification

Looking to the specification, the Court is further persuaded by Apple’s construction. *See Phillips*, 415 F.3d at 1315 (explaining that the specification is “‘always highly relevant’” and “[u]sually [] dispositive; it is the single best guide to the meaning of a disputed term.”). While Samsung cites the patent specification in support of its proposed construction, the relevant language consistently undermines Samsung’s position. Most notably, the description of the preferred embodiment recites: “[a] gold code *used herein as a scrambling code* is generated through binary adding of two distinct m-sequences.” ’867 Patent 6:23-24 (emphasis added). This language in the specification supports Apple’s construction because it establishes that gold codes may be *used* as scrambling codes, but are not necessarily *always* scrambling codes.

Similarly, the patent’s description of the UMTS technology, in the Background of the Invention section of the specification, states that “each unique scrambling code used for spreading (scrambling) downlink channel signals of each base stations [sic] is referred to as ‘primary scrambling code.’” ’867 Patent 1:52-54 (emphasis added). This language in the specification cuts against Samsung’s construction because it describes a scrambling code based on what it does (spreading downlink data), not how it is formed.

Moreover, the ’867 Patent explicitly states in the specification that “[i]t should be noted that *for the purpose of illustration*, the term ‘scrambling code’ is interchangeable with the term ‘gold code’ or ‘gold sequence.’” ’867 Patent 2:13-16 (emphasis added). In other words, because the ’867 Patent requires that Gold codes be used as scrambling codes, the two can be used interchangeably for the purposes of the preferred embodiment.

c. Prosecution History

There is additional support for Apple’s construction in the prosecution history of the ’867 Patent. *Phillips*, 415 F.3d at 1317 (internal citations omitted) (the prosecution history “can often

1 inform the meaning of the claim language by demonstrating how the inventor understood the
 2 invention and whether the inventor limited the invention in the course of prosecution, making the
 3 claim scope narrower than it otherwise would be”).

4 For example, in one response to an office action with respect to pending claim 59 (which
 5 became issued claim 25), the applicant made several remarks regarding the relationship between
 6 the gold code and the primary scrambling code. For example, in a response dated April 28, 2006,
 7 the applicant explained that “[i]n this context . . . a *Gold code used herein as a scrambling code* is
 8 generated through binary adding of two distinct m-sequences.” Selwyn Ex. 18 at 15 (emphasis
 9 added). Similarly, the applicant explained on December 11, 2006, that “[c]onventionally, it is
 10 well-known that Gold codes do not have fixed order. *To use these Gold codes as*
 11 *primary/secondary scrambling codes*, it is necessary to clearly indicate to each base station a
 12 primary scrambling code and corresponding secondary scrambling codes.” Selwyn Ex. 19 at 16
 13 (emphasis added). These statements demonstrate that the gold codes are to be used as primary and
 14 secondary scrambling codes in the disputed terms.

15 **d. Extrinsic Evidence**

16 Finally, the parties cite to the 3GPP standard as extrinsic evidence regarding what a person
 17 of ordinary skill in the art would have understood the disputed terms at the time of the invention.
 18 *Phillips*, 415 F.3d at 1312-13 (en banc) (the court’s duty is to determine “the meaning that the
 19 term[s] would have to a person of ordinary skill in the art in question at the time of the invention”);
 20 *see also* Opp’n at 5. It does not appear, however, that the 3GPP standard is properly extrinsic
 21 evidence as the patent was filed in 2000, and the 3GPP attached as evidence was published in
 22 2004. Selwyn Decl. Ex. 6 at 2.

23 Even if the standard were properly extrinsic evidence, it would not change the Court’s
 24 construction of the disputed term. The 3GPP standards differentiate between two mathematical
 25 sequences, $z_n(i)$ and $S_{dl,n}(i)$, labeling the first a Gold code, and the second a “complex scrambling
 26 code.” Indeed, the standards explain that the “complex scrambling code” is mathematically
 27 derived from the Gold code, first by transforming the binary Gold code (a $\{0,1\}$ valued sequence)
 28 into a $\{-1, 1\}$ valued sequence, and next by adding that $\{-1, 1\}$ valued sequence to an imaginary,

1 shifted version of itself. Because the 3GPP standards make clear that the scrambling code, $S_{dl,n}(t)$,
 2 is a complex sum of two transformed Gold codes, rather than a sum of a first m-sequence and a
 3 second m-sequence, they cannot support Samsung's construction.¹

4 Finally, it should be noted that none of the intrinsic evidence helps to solve a significant
 5 problem with Samsung's construction: its failure to address the use of "primary" and "secondary"
 6 as adjectives to describe "scrambling code." That is, even if Samsung's construction for
 7 "scrambling code" was adopted, Samsung does not propose any meaningful way to distinguish
 8 between "primary scrambling codes" and "secondary scrambling codes." Indeed, while Samsung's
 9 argument touches on "binary scrambling codes," "real scrambling codes," and "complex
 10 scrambling codes," it fails to explain how to distinguish primary codes from secondary ones.
 11 Opp'n at 5. The '867 Patent *does* address "primary" and "secondary" scrambling codes, but it
 12 describes a "primary scrambling code" as "the . . . unique scrambling code used for spreading
 13 (scrambling) downlink channel signals" and the "secondary scrambling code" as code that is "used
 14 for scrambling downlink data channels in case that an orthogonal codes [sic] is not available using
 15 the primary scrambling code." '867 Patent 1:52-58.

16 Accordingly, the term "a $((K-1)*M+K)^{th}$ Gold code as a K^{th} primary scrambling code" is
 17 construed as meaning "a $((K-1)*M+K)^{th}$ Gold code as a K^{th} primary code used to spread (scramble)
 18 data."

19 2. Infringement

20 Samsung does not allege that the accused products use Gold codes as "scrambling codes"
 21 within the meaning of the term construed above. Rather, Samsung's opposition to Apple's motion
 22 for summary judgment on infringement of the '867 patent rested almost solely on the disputed
 23 meaning of "scrambling codes."

24
 25
 26 ¹ Samsung argues that the use of the adjective "complex" to describe $S_{dl,n}(t)$ as a "scrambling
 27 code" implies that $z_n(i)$ must be a non-complex scrambling code. This argument ignores the fact
 28 that there are at least three other mathematic sequences located in the relevant portion of the 3GPP
 standards, all of which, based on this logic, should be labeled as "scrambling codes." Two of these
 other sequences, however, are m-sequences, which cannot be "scrambling codes" according to
 Samsung's definition.

Specifically, there is no dispute that the accused Apple products use chips that practice the 3GPP standard. *See* Opp'n at 5-6; MSJ at 5. There is also no dispute regarding the specification of the 3GPP standard. As explained above, the 3GPP standards differentiate between mathematical sequences, $z_n(i)$ and $S_{dl,n}(i)$. The first sequence, $z_n(i)$, is a gold code sequence. The gold code sequences are binary sequences, which are used to generate real valued sequences, z_n . Finally, the "complex scrambling code sequence," $S_{dl,n}(i)$, is generated. *See* 3GPP Specification at 23; Selwyn Decl. Ex. 6. Samsung's expert, Dr. Wesel, argues that the 3GPP standard incorporates the disputed claims. Specifically, Dr. Wesel testified that the gold code in the 3GPP standard is used for spreading under Apple's construction "because it's used to make the ultimate spreading code." Wesel Dep. at 165-166; Selwyn Decl. Ex. 5. However, Samsung's argument of non-infringement under Apple's construction is not persuasive. It is undisputed that the gold codes generated pursuant to the 3GPP standard do not, themselves, act as a primary scrambling code as is required under the proper construction. Instead, the gold codes must be converted and transformed to another sequence that acts as a scrambling code. *See* 3GPP Specification at 23; Selwyn Decl. Ex. 6.

Because it is undisputed that Apple's accused products do not use Gold codes as scrambling codes, the accused products do not, as a matter of law, infringe claims 25 and 26 of the '867 Patent. Accordingly, Apple's motion for summary judgment of non-infringement of the '867 Patent is GRANTED.

B. Invalidity of the '893 Patent

Apple moves for summary judgment on the '893 Patent arguing that independent claim 10 and dependent claim 12, which depends from claim 10, are invalid as indefinite. MSJ at 12. Claim 10, recites:

A digital image processing apparatus comprising:
 an optical system for receiving a light reflected from a subject;
 a photoelectric conversion module in optical communication with the optical system for converting the light to image data;
 a recording medium for storing the image data in an image file;
 a display screen for displaying the image data; and
 a controller connected with the photoelectric conversion module, the recording medium and the display screen, the controller being operative in a photographing mode to process the image data for storage in the recording medium and, in a stored-image display

mode, being operative to control the display screen for displaying a single image relative to the image data,

wherein *upon a user performing a mode-switching operation* defined by switching from the stored-image display mode to the photographing mode and back to the stored-image display mode the controller causes the display screen to first display a single image file that was most recently displayed before the mode-switching operation, the single image file being different from a most-recently stored image file, and the single image file being first displayed irrespective of a duration that the camera was used in the photographing mode during the mode-switching operation.

'893 Patent 10:20-47 (emphasis added).

The '893 Patent enjoys the presumption of validity pursuant to 35 U.S.C. § 282, absent clear and convincing evidence to the contrary. Apple argues that claims 10 and 12 of the '893 Patent are invalid as indefinite because they are hybrid method and apparatus claims under *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005). MSJ at 13. Under 35 U.S.C. § 112, ¶ 2, patent claims must "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention." The purpose of this requirement is to "ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude." *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010) (quotation marks omitted).

Apple's argument that claims 10 and 12 are indefinite hybrid claims arise from the Federal Circuit decision in *IPXL*. In *IPXL*, the Federal Circuit found that a single claim that recited both an apparatus and a method for using that apparatus was invalid as indefinite. The claim read:

The *system of claim 2* [including an input means] wherein the predicted transaction information comprises both a transaction type and transaction parameters associated with that transaction type, *and the user uses the input means* to either change the predicted transaction information or accept the displayed transaction type and transaction parameters.

IPXL, 430 F.3d at 1384 (emphasis in original). The claim was found invalid because, by referring to both the system itself and the user's use of the system, it was unclear whether infringement occurred "when one creates a system that allows the user to change the predicted transaction information or accept the displayed transaction" or "when the user actually uses the input means to change transaction information or uses the input means to accept a displayed transaction." *Id.* As a result, a person of ordinary skill in the art could not reasonably determine the scope of the patent, and therefore could not know when she infringed on it.

1 However, *IPXL* does not invalidate every claim that includes language describing both an
 2 apparatus and functional requirements of that apparatus. In *Microprocessor Enhancement Corp. v.*
 3 *Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008), the Federal Circuit emphasized that
 4 “apparatus claims are not necessarily indefinite for using functional language.” It further clarified
 5 that “[t]he conclusion of *IPXL Holdings* was based on the lack of clarity as to when the mixed
 6 subject matter claim would be infringed.” *Id.* at 1374. Where there is “no similar ambiguity” in
 7 the claims at issue a finding of invalidity is improper. *Id.* at 1375. Thus, the task for district courts
 8 is to distinguish between claims that ambiguously appear to claim both an apparatus and a method
 9 for using the apparatus, and claims that simply use functional language to describe the apparatus
 10 and “offer sufficient notice to potential defendants as to the actions which would constitute
 11 infringement.” *Eolas Technologies, Inc. v. Adobe Systems, Inc.*, 810 F. Supp. 2d 795, 812 (E.D.
 12 Tex. 2011); *Freedom Wireless, Inc. v. Alltel Corp.*, No. 2:06cv504 (TJW–CE), 2008 WL 4647270,
 13 at *14 (E.D. Tex. Oct. 17, 2008).

14 For example, in *Yodlee, Inc. v. CashEdge, Inc.*, the following claim language was alleged to
 15 be an invalid hybrid claim:

16 A computer-readable storage device storing instructions that upon execution cause a
 17 processor to automatically access personal information associated with an end user, wherein
 18 the personal information is stored on a personal information provider by performing the
 steps comprising of: ...

19 (b) upon activation of the presented link, downloading an application to the client computer,
 20 wherein the downloaded application upon execution on the client computer performs the
 steps of

21 *Yodlee, Inc. v. CashEdge, Inc.*, No. C 05-01550 SI, 2006 WL 3456610 at *4 (N.D. Ca. Nov. 29,
 22 2006) (emphasis added). Because paragraph (b) referred to “activation” by a user, defendant
 23 CashEdge argued that the claim appeared to include user activation as part of the patent, and
 24 therefore made it unclear whether infringement occurred simply upon creation of a system that
 25 enabled such activation, upon the user actually completing that activation, or both. *Id.* The court
 26 disagreed, finding that the claim “does not seek to patent activation of the link; it seeks only to
 27 patent a device which performs certain functions if and when the link is activated.” *Id.* Thus, it
 28 was sufficiently clear that “[i]nfringement occurs when a device that has the capability of

performing the steps described under paragraph (b) is manufactured and sold. Whether a user actually activates the link presented by the infringing device is of absolutely no import.” *Id.* Thus, the disputed claims were not invalid hybrid claims under the *IPXL* rule.

The disputed claims here, which require “wherein *upon a user performing a mode-switching operation*,” use functional language to describe the capabilities of the claimed apparatus when the user performs a mode-switching operation. Much like *Yodlee*, it does not imply that the user’s performance of that operation is the infringing conduct; indeed, whether the user actually performs the operation is irrelevant. Instead, it claims only a device that is capable of responding to the specified user action in the specified way. Creation of such a device would constitute infringement, regardless of whether the user ultimately takes that particular action.

In response, Apple argues² that *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303 (Fed. Cir. 2011), supports its construction of the disputed term. The pertinent language of the claim in *Katz* read: “interface means for providing automated voice messages relating to said specific format to certain of said individual callers, *wherein said certain of said individual callers digitally enter data.*” *Id.* at 1318 (emphasis added). The disputed claim term in *Katz*, however, is more ambiguous than the disputed claim language in claims 10 and 12 of the ’893 Patent. Specifically, the claim term in *Katz* required that the claimed “interface means” included the step of callers digitally entering data. By doing so, the term ambiguously mixed method and apparatus claims. Unlike the claim term here, the claim term in *Katz* did not describe the functionality of the claimed system – that is, it did not suggest merely that the interface means must be able to respond in a certain way if the callers digitally enter data. *See id.* (“Like the language used in the claim at issue in *IPXL* (‘wherein ... the user uses’), the language used in *Katz*’s claims (‘wherein ... callers digitally enter data’ and ‘wherein . . . callers provide . . . data’) is directed to user actions, not system capabilities.”)

² Apple also argues that Samsung’s expert agrees that “apparatus claim 10 requires user action to practice the claim.” Reply at 4. However, the deposition testimony is ambiguous on this point. Dr. Yang analogizes the claim terms to a “switch” in which the apparatus responds to a user input. This analogy more closely comports with an apparatus claim with functional limitations. *See* Yang Dep. 80:1 – 80:21, Selwyn Decl. Ex. 12.

1 In sum, claims 10 and 12 establish functional capabilities of apparatus claims, and do not
 2 impermissibly create hybrid method and apparatus claims. Therefore, Apple's motion for
 3 summary judgment on invalidity of the '893 Patent is DENIED.

4 **C. Invalidity of the '460 Patent**

5 Apple moves for summary judgment on the '460 Patent, arguing that asserted claim 1 is
 6 indefinite pursuant to 35 U.S.C. § 112, ¶ 2 (2006). The '460 Patent, entitled "Portable Composite
 7 Communication Terminal for Transmitting/Receiving and Images, and Operation Method and
 8 Communication System Thereof," is directed toward a method for transmitting e-mails, with and
 9 without embedded images, from mobile phones with built-in cameras (popularly known in modern
 10 parlance as "camera phones").

11 In particular, the '460 Patent discloses a mobile device with two "sub-modes" of e-mail
 12 transmission, one that includes the most recently captured photograph in the body of an e-mail in
 13 addition to text and the other that allows only for purely textual e-mails. At the time of the
 14 invention disclosed in the '460 Patent, there were no devices that could capture digital images and
 15 transmit them to other devices. '460 Patent, 1:34-36. The system disclosed in the '460 Patent
 16 selects between the two e-mail sub-modes based on how the phone was being used immediately
 17 prior to the user's request to send an e-mail. If the phone was being used as a normal portable
 18 phone when the user requests e-mail transmission, the device enters the first (non-image) e-mail
 19 sub-mode. If the phone was being used to display pictures, however, the device enters the second
 20 e-mail sub-mode. At the time of invention, the system described in the '460 Patent was the only
 21 one that allowed for transmission of e-mails from mobile devices in both sub-modes. Declaration
 22 of Sam Stake ("Stake Decl."), Ex. 9 at APLNDC-WH-A 0000014122.

23 Samsung accuses Apple's mobile devices running iOS 4 or iOS 5 of infringing claim 1 of
 24 the '460 Patent, which recites:

25 A data transmitting method for a portable composite communication terminal which
 26 functions as both a portable phone and a camera, comprising the steps of:
 27 entering a first E-mail transmission sub-mode upon user request for E-mail
 28 transmission while operating in a portable phone mode, the first –e-mail
 transmission sub-mode performing a portable phone function;

entering a second E-mail transmission sub-mode upon user request for E-mail transmission while operating in a display sub-mode, the second E-mail transmission sub-mode displaying an image most recently captured in a camera mode;
 sequentially displaying other images stored in a memory through the use of scroll keys;
 transmitting the address of the other party and a message received through a user interface in the first E-mail transmission sub-mode; and
 transmitting the address of the other party and the message received through the user interface and the image displayed on the display as an E-mail in the second E-mail transmission sub-mode.

'460 Patent, 14:24-44.

In order to be valid, a patent claim must "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention." 35 U.S.C. § 112 ¶ 2. Whether a claim satisfies the so-called "definiteness" requirement of Section 112, ¶ 2 is a matter of law and is therefore appropriately decided at summary judgment. *See, e.g., Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996).

Section 112, ¶ 2 is intended "to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude." *Haermonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010). For a claim to be "definite," it must "provide a discernible boundary between what is claimed and what is not," *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1365 (Fed. Cir. 2011). Accordingly, definiteness does not require that claim terms have an obvious facial meaning, but only that "those terms can be given any reasonable meaning." *Datamize LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005).

Thus, to prove that a patent is indefinite, one must show that the claim terms are "insolubly ambiguous," *Haliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008), that is, that "one of ordinary skill in the relevant art could not discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art." *Wellman*, 642 F.3d at 1366 (citations and quotation marks omitted). Because patents are presumptively valid, 35 U.S.C. § 282, the party asserting indefiniteness bears the burden of proof and must demonstrate invalidity by clear and convincing evidence. *Young v. Lumenis, Inc.*, 492

1 F.3d 1336, 1345 (Fed. Cir. 2007) (citing *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1238-
2 39 (Fed. Cir. 2003)).

3 Apple argues that claim 1 of the '460 patent is insolubly ambiguous because it would be
4 unclear to a person of ordinary skill in the art whether the claimed method is practiced by: (1)
5 sending two separate e-mails from two separate e-mail sub-modes; (2) sending a single e-mail from
6 the first e-mail sub-mode if the e-mail does not contain an image and a single e-mail from the
7 second e-mail sub-mode if it does contain an image; or (3) sending a single e-mail from the second
8 e-mail sub-mode only, where the non-image portions of the e-mail are transmitted from the first
9 sub-mode to the second. MSJ at 16. Furthermore, Apple argues, the patent specification only adds
10 confusion rather than clarity, as it only describes a single "E-mail transmission sub-mode," not two
11 as disclosed in the claim, and that the prosecution history is similarly unhelpful. *See* MSJ at 17-18;
12 Selwyn Decl., Ex. 22 ¶ 338.

13 The Court is not persuaded by Apple's arguments. First, the supposed ambiguity that
14 Apple points out in the '460 Patent is more analogous to the kind of ambiguity that is routinely
15 resolved by claim construction than the kind that requires wholesale invalidation of a patent.
16 Rather than demonstrating the existence of infinite potential interpretations of a supposedly
17 ambiguous claim term, Apple has enumerated a small, finite number of constructions on which
18 reasonable minds might disagree. *See Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200,
19 1217-18 (Fed. Cir. 1991) (holding a claim term specifying "at least about 160,000 I.U." to be
20 indefinite). This is not enough to meet the high standard necessary to show indefiniteness. *See*
21 *Exxon Research and Engineering Co. v. U.S.* 265 F.3d 1371, 1375 (Fed. Cir. 2001).

22 Moreover, claim 1, read in light of the specification and prosecution history, only meets the
23 construction offered by Samsung. Samsung argues that claim 1 establishes three functionalities:
24 sending an e-mail transmission from a first e-mail submode; sending an e-mail transmission with
25 an image from a second e-mail sub-mode; and sequentially displaying other images with a scroll
26 key. Opp'n at 13-15. First, the plain language of the text establishes that in order for all five steps
27 enumerated in claim 1 to be satisfied, it is clear that both the first and second E-mail sub-modes
28 must be used to send an e-mail. '460 Patent 14:38-44. Obviously, this could be accomplished

1 through the transmission of two e-mails, one from each sub-mode, as Apple recognizes in its first
2 proposed implementation. MSJ at 16. Samsung also agrees that such functionality would satisfy
3 the limitations of claim 1. Opp'n at 14.

4 The '460 Patent specification further supports Samsung's interpretation of the claim
5 language as requiring the transmission of two e-mails, one from each sub-mode. For example,
6 Figures 6 and 8 in the '460 Patent specification show a mode and a sub-mode: a play sub-mode and
7 a portable phone mode. Each mode and sub-mode has a corresponding e-mail transmission sub-
8 mode. *See* '460 Patent Figs. 6 & 8. Moreover, the specification describes the two e-mail
9 transmission sub-modes described in the figures. '460 Patent at 11:62-12:3; 12:30-41. Apple
10 argues that, in referring to only a single sub-mode rather than two sub-modes, the specification
11 only "serves to compound the ambiguity of claim 1." MSJ at 17. For example, Apple cites
12 language in the specification stating that "[u]pon request for E-mail transmission . . . the portable
13 phone controller . . . enters *an* E-mail transmission sub-mode." '460 Patent 9:42-44 & Fig. 6
14 (emphasis added). Apple reads this specification to mean, contrary to the claim language, that the
15 phone only contains one email sub-mode, not two. A person of ordinary skill in the art, by
16 contrast, would read the relevant phrase to mean that the phone only *enters* one email sub-mode,
17 not that there only *exists* one email sub-mode.

18 The prosecution history further supports Samsung's interpretation that there are three
19 functions contained in claim 1.³ Several parts of the prosecution history show that the examiner
20 and the applicant both understood that claim 1 was directed to sending separate e-mails through
21 two distinct sub-modes. For example, the examiner rejected claim 20 (which was similar to claim
22 1 that issued) because the claimed invention was obvious in light of prior art that disclosed:

23 [A]n audio-visual e-mail system having *a first E-mail transmission mode* for transmitting a
24 text-only email message and *a second E-mail transmission sub-mode* upon user request for
25 E-mail transmission, wherein the second E-mail sub-mode displays an image captured by a
26 digital camera and transmits the address of the other party and the message received
27 through the user interface and the image display on the display.

28 ³ The Court gives little weight to named inventor testimony. *Bell & Howell DMP Co. v. Altek Sys.*,
132 F.3d 701, 706 (Fed. Cir. 1997). Therefore, the Court does not address Apple's additional
arguments regarding the testimony of the '460 Patent inventors.

1 Stake Decl. Ex. 5 at 9; Opp'n at 16. Thus, the prosecution history suggests that the claim
2 contemplates e-mail transmissions from each sub-mode.

3 The Court adopts Samsung's construction of claim 1, which is also the first alternative
4 proposed by Apple. The first construction adopted by the Court excludes the other two proposed
5 constructions, and therefore the Court need not consider the two alternative constructions proposed
6 by Apple. Because definiteness only requires a showing that the claim terms may be given a
7 "reasonable meaning," Apple has also successfully demonstrated the definiteness of the '460
8 Patent. Accordingly, the Court DENIES Apple's motion for summary judgment with regards to
9 the indefiniteness of the '460 Patent.

10 **III. CONCLUSION**

11 Apple's motion for partial summary judgment is granted in part and denied in part. Apple's
12 motion for summary judgment on non-infringement of the '867 Patent is GRANTED. Apple's
13 motion for summary judgment on invalidity of the '893 Patent and the '460 Patent is DENIED.

14 **IT IS SO ORDERED.**

15
16 Dated: June 29, 2012

17 
LUCY H. KOH
United States District Judge