UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

APPLE, INC., a California corporation, Plaintiff and Counterdefendant, v. SAMSUNG ELECTRONICS CO., LTD., a Korean corporation; SAMSUNG ELECTRONICS AMERICA, INC., a New York corporation; and SAMSUNG TELECOMMUNICATIONS AMERICA, LLC, a Delaware limited liability company, Defendants and Counterclaimants.	Case No.: 12-CV-00630-LHK ORDER GRANTING IN PART AND DENYING IN PART SAMSUNG'S MOTION FOR JUDGMENT AS A MATTER OF LAW

On May 5, 2014, after a thirteen-day trial and approximately four days of deliberation, a jury in this patent case reached a verdict. ECF No. 1884. On May 23, 2014, Samsung filed a motion for judgment as a matter of law and motion to amend the judgment. ECF No. 1896-3 ("Mot."). On June 6, 2014, Apple filed an opposition. ECF No. 1908-3 ("Opp'n"). On June 13, 2014, Samsung filed a reply. ECF No. 1917 ("Reply"). The Court held a hearing on July 10, 2014. Having considered the law, the record, and the parties' argument, the Court GRANTS Samsung's motion for judgment as a matter of law that Samsung did not willfully infringe the '721 patent and DENIES Samsung's motion in all other respects.

I. LEGAL STANDARD

Federal Rule of Civil Procedure 50 permits a district court to grant judgment as a matter of law "when the evidence permits only one reasonable conclusion and the conclusion is contrary to that reached by the jury." *Ostad v. Or. Health Scis. Univ.*, 327 F.3d 876, 881 (9th Cir. 2003). A party seeking judgment as a matter of law after a jury verdict must show that the verdict is not supported by "substantial evidence," meaning "relevant evidence that a reasonable mind would accept as adequate to support a conclusion." *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1366 (Fed. Cir. 2005) (citing *Gillette v. Delmore*, 979 F.2d 1342, 1346 (9th Cir. 1992)). The Court must "view the evidence in the light most favorable to the nonmoving party . . . and draw all reasonable inferences in that party's favor." *See E.E.O.C. v. Go Daddy Software, Inc.*, 581 F.3d 951, 961 (9th Cir. 2009) (internal quotations and citations omitted).

A new trial is appropriate under Rule 59 "only if the jury verdict is contrary to the clear weight of the evidence." *DSPT Int'l, Inc. v. Nahum*, 624 F.3d 1213, 1218 (9th Cir. 2010). A court should grant a new trial where necessary "to prevent a miscarriage of justice." *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 729 (9th Cir. 2007).

II. ANALYSIS

A. Non-infringement of Claim 9 of the '647 Patent

The '647 patent is directed to a "system and method for performing an action on a structure in computer-generated data." The '647 patent generally covers a computer-based system and method for detecting structures, such as phone numbers, post-office addresses, or dates, and performing actions on the detected structures. *See* '647 Patent Abstract, col.1 ll.8-16. Apple asserted claim 9 of the '647 patent against Samsung. Claim 9 depends from claim 1 and recites:

> 1. A computer-based system for detecting structures in data and performing actions on detected structures, comprising:
> an input device for receiving data;
> an output device for presenting the data;
> a memory storing information including program routines including
> an analyzer server for detecting structures in the data, and for linking actions to the detected structures;
> a user interface enabling the selection of a detected structure and a linked action; and

an action processor for performing the selected action linked to the selected structure; and

a processing unit coupled to the input device, the output device, and the memory for controlling the execution of the program routines.

9. The system recited in claim 1, wherein the user interface enables selection of an action by causing the output device to display a pop-up menu of the linked actions.

'647 Patent cls. 1, 9. The jury found that all nine accused Samsung products infringe, and awarded damages. *See* ECF No. 1884 at 9. Samsung now moves for judgment as a matter of law that claim 9 is not infringed and is invalid in light of prior art. The Court addresses non-infringement and invalidity in turn.

As to non-infringement, Samsung contends that Apple presented its case under incorrect claim constructions that the Federal Circuit rejected shortly before the close of trial, in *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014) ("*Motorola*"), and that Apple failed to demonstrate infringement of at least three limitations of claim 9, as properly construed. The Court concludes that substantial evidence supports the jury's finding of infringement, and accordingly DENIES Samsung's motion.

"To prove infringement, the plaintiff bears the burden of proof to show the presence of every element or its equivalent in the accused device." *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1301 (Fed. Cir. 2011). "If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law." *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

1. Claim Construction

Samsung argues extensively that Apple presented an infringement case based on the wrong claim constructions. Samsung contends that Apple "shot for the moon" by relying on broad constructions of "analyzer server" and "linking actions," and that the Federal Circuit's opinion in *Motorola* rendered most of Apple's case ineffective. *See* Mot. at 1-8.

Samsung's arguments at this stage are misdirected to the extent they do not address the merits of Apple's infringement case—namely, the evidence and claim language at issue. During trial, the Court specifically addressed the effect of the *Motorola* decision with input from the

parties, and allowed both Apple and Samsung to present supplemental expert testimony before submitting the case to the jury. Accordingly, the verdict must be evaluated against the evidence presented, not the parties' procedural disputes regarding *Motorola*.

On March 19, 2012, in the *Motorola* litigation, the Northern District of Illinois construed the terms "analyzer server" and "linking actions to the detected structures" in the '647 patent. *See Apple, Inc. v. Motorola, Inc.*, No. 11-CV-08540, slip op. at 8-11 (N.D. Ill. Mar. 19, 2012). On July 20, 2012, the parties to the *Motorola* litigation appealed these constructions to the Federal Circuit. Meanwhile, in the instant case, this Court held a claim construction hearing on February 21, 2013 and issued a claim construction order on April 10, 2013. *See* ECF No. 447. The parties requested and received construction of only one term in the '647 patent, "action processor." *See id.* at 64.

However, since claim construction proceedings concluded, both parties have attempted to seek untimely constructions of the '647 patent. In its summary judgment motion, Apple sought belated constructions for "analyzer server" and "linking actions," ECF No. 803-4 at 5 n.6, but the Court found that "Apple's attempt to argue for a new claim construction at this stage is doubly improper, both because it did not raise its arguments at the claim construction stage and because Apple is trying to sidestep the summary judgment page limitations by incorporating legal arguments in a separate declaration," ECF No. 1151 at 17. On March 27, 2014, only days before the start of trial, Samsung filed a request to supplement the jury books with the Northern District of Illinois's constructions of "analyzer server" and "linking actions" that were then awaiting review by the Federal Circuit in *Motorola*. ECF No. 1521. The Court denied Samsung's request. ECF No. 1536. The case then proceeded to trial.

On April 25, 2014, which was the last scheduled day of evidence at trial, the Federal Circuit issued its decision in *Motorola*. The Federal Circuit affirmed the Northern District of Illinois's following constructions of "analyzer server" and "linking actions" from the '647 patent, and rejected Apple's arguments to alter those constructions:

> "analyzer server": "a server routine separate from a client that receives data having structures from the client."

> "linking actions to the detected structures": "creating a specified connection between each detected structure and at least one computer subroutine that causes the CPU to perform a sequence of operations on that detected structure."

Motorola, 757 F.3d at 1304-07. In response to this sudden development, the Court allowed the parties to address the effect of *Motorola* on the trial, after which the parties agreed to extend the trial and present additional testimony from their respective experts on '647 patent infringement and validity. *See* Tr. at 2988:4-3003:20; ECF Nos. 1828, 1845. The Court also provided the *Motorola* constructions to the jury. *See id.* at 3014:16-24.

Before and during trial, the parties relied on expert opinions regarding infringement and validity of the '647 patent from Dr. Todd Mowry (Apple) and Dr. Kevin Jeffay (Samsung). Apple now asserts that Samsung waived any challenges to Dr. Mowry's testimony based on the *Motorola* constructions because Samsung did not raise these issues in its pre-verdict Rule 50(a) motion. Opp'n at 3. Apple's objection is misplaced. Apple does not identify which specific non-infringement arguments Samsung allegedly waived. Samsung addressed the sufficiency of Dr. Mowry's testimony during oral arguments for Rule 50(a) motions at the close of the evidence. *E.g.*, Tr. at 3114:20-3115:4 (referring to Dr. Mowry's opinions).

Samsung claims that Apple's infringement case and Dr. Mowry's testimony before the issuance of *Motorola* relied on the claim constructions that the Federal Circuit rejected. However, the time for these arguments has passed, as the parties decided to permit additional evidence to address the *Motorola* constructions. Moreover, the Court notes that when trial resumed on April 28, 2014, Samsung attempted to have Dr. Jeffay testify misleadingly that he had used the *Motorola* constructions "since the very first day I worked on this case." *Id*. at 3055:2-6. In fact, in his expert reports, Dr. Jeffay did not offer opinions on which claim constructions were correct. *See, e.g.*, ECF No. 882-11 (Jeffay Rebuttal Report) ¶¶ 120-28; Tr. at 3060:14-3064:21. Dr. Jeffay also testified at deposition that he had not taken positions on the *Motorola* constructions. *E.g.*, *id.* at 3067:8-14 (quoting Jeffay deposition: "So sitting here today, based on all the information you've seen, do you have an opinion as to what the proper construction of analyzer server is as it appears in claim 1? Answer: No."); *see also id.* at 3056:8-3077:25.

At this stage, the parties' prior attempts to argue claim construction are not germane. Rather, the relevant issue is whether a reasonable jury, properly instructed, could have determined from the evidence presented that Samsung's accused products infringe claim 9 of the '647 patent. Indeed, despite raising these issues, Samsung asserts in its Reply that "pretrial and recall procedure are irrelevant here" and "the only relevant consideration is the record." Reply at 3.

2. "Linking Actions" and "Specified Connection"

The Federal Circuit construed the claim phrase "linking actions to the detected structures" to mean "creating a *specified connection* between each detected structure and at least one computer subroutine that causes the CPU to perform a sequence of operations on that detected structure." *Motorola*, 757 F.3d at 1305-06 (emphasis added). Samsung argues that the claimed "analyzer server" must create the "specified connection," and that no accused device can possibly infringe because the user selects an action to be linked. *See* Mot. at 9-11. However, a reasonable jury could have found infringement of this limitation.

Samsung presented testimony from Google engineer Dianne Hackborn, who discussed "Intents" in the Android operating system, explaining that Intents "do communications between applications or interactions between applications." Tr. at 1580:1-6. Hackborn testified that when an application wants to have a user perform an action, such as composing an e-mail, it can make an Intent "and give it to Android and then Android will find an application that can actually do that." *Id.* at 1580:7-13. Dr. Jeffay then testified that "there is no specified connection" in Android because the Intent mechanism does not bind a specific application (such as a particular e-mail client) to a structure. *Id.* at 3087:3-3089:1 ("What's not linked is the code that's ultimately going to, for example, dial the phone.").

However, Dr. Mowry expressed contrary opinions that the jury could have credited. Dr. Mowry's infringement theory was that the Messenger (also referred to as "Messaging" by the parties) and Browser applications in Android include a method called setIntent() that calls another method called startActivity(), which corresponds to the "at least one computer subroutine" in claim 9 as construed in *Motorola*. Dr. Mowry explained that the *Motorola* construction of "linking

actions" did not change his infringement opinion, based on his review of source code for the Messenger and Browser applications in the Gingerbread, Ice Cream Sandwich, and Jelly Bean versions of Android, which he presented to the jury. *Id.* at 3026:16-3028:22. As an example, for the Gingerbread Messenger application, Dr. Mowry testified that setIntent() "records an intent object for a particular choice in the pop-up menu that shows you choices of linked action," and that once the user picks an option, it necessarily calls the startActivity() method and passes an Intent object. *Id.* at 3027:6-23.

Samsung claims that there is no "specified connection" in the accused devices because there is no pre-existing link between a detected structure (such as an e-mail address) and a computer subroutine that directly performs an action (such as the Gmail application). Samsung argues that startActivity() is not called until the user selects an action, so it cannot be a "specified" connection. Samsung also contends that claim 9 requires "a *linked* action," which further confirms that there must be a pre-existing link between the structure and the subroutine. *See* Mot. at 10. However, Dr. Mowry addressed this issue when he explained to the jury that startActivity() is "necessarily" and automatically called when a structure is detected. *See* Tr. at 3027:14-17. Also, as Apple notes, under the *Motorola* construction, the analyzer server is for "*creating* a specified connection," such that the claimed action need not always be "linked" to a structure prior to detection of that structure. Furthermore, Dr. Jeffay admitted that startActivity() is a "computer subroutine that's actually linked into the detected structures," but claimed that no specified connection exists because claim 9 requires that "you link the actual program that performs that function," such as dialing a phone number. *Id.* at 3090:5-20. The *Motorola* construction of "linking actions," however, requires only that the detected structure be linked to a "computer subroutine that *causes the CPU to perform*" that function. Thus, the jury could have determined that startActivity() satisfies this limitation because it is admittedly a linked subroutine that causes performance of an action. While "it is well settled that an expert's unsupported conclusion on the ultimate issue of infringement is insufficient to raise a genuine issue of material fact," *Arthur A. Collins, Inc. v. N.*

Telecom Ltd., 216 F.3d 1042, 1046 (Fed. Cir. 2000), that is not the situation here. The jury could have evaluated the expert testimony and reasonably determined infringement of this limitation.

For completeness, the Court addresses two additional arguments from Apple that are misplaced. First, Apple contends that Samsung waived its argument regarding the "linked action" limitation by not raising it in its pre-verdict Rule 50(a) motion. *See* Opp'n at 8 n.2. Samsung does not respond to this waiver argument in its Reply. However, the Court finds no waiver because Samsung argued repeatedly that no "specified connection" exists in Android. *See* Tr. at 3115:12-3117:10. Second, Apple notes that the Northern District of Illinois previously concluded in *Motorola* that infringement of "linking actions" (and other limitations) was not amenable to summary judgment. These arguments are meritless. *Motorola* involved different products and parties. Moreover, Apple asked the Court to exclude references to *Motorola* from trial because "the *Motorola* order, and any reference to rulings, findings, or other developments in cases not involving both parties to this action should be excluded." ECF No. 1281-3 at 4. Having argued that prior orders in *Motorola* were irrelevant, Apple cannot now rely on them.

Even setting aside Apple's misplaced arguments, the Court determines for the reasons above that a reasonable jury could have found infringement of the "linking actions to the detected structures" limitation.

3. "Analyzer Server"

The claimed "analyzer server" means "a server routine separate from a client that receives data having structures from the client." The parties focus their dispute on whether Android includes a server routine that is "separate from a client."

Apple contended that the Messenger and Browser applications contain shared libraries that correspond to the "analyzer server" limitation. *See* Tr. at 3017:17-3019:21. These shared libraries include the Linkify, Cache Builder, and Content Detector classes. *Id.* Dr. Mowry stated that Messenger and Browser are "clients" that pass data to these shared libraries to detect structures. *Id.* at 3017:9-16. Samsung claims infringement is impossible under this theory because a shared library is not "separate" from the client application. Samsung points to Ms. Hackborn's testimony,

where she stated that Linkify "is not a server" and "does not run on its own. It runs as part of the application that's using it." *Id.* at 1585:9-18. Dr. Jeffay relied in part on Ms. Hackborn's testimony to opine that shared libraries are not separate from the clients because they "become[s] part of the application." *Id.* at 3079:17-3080:7, 3084:20-22 ("Q. So if you pull the Linkify code out of Messenger, what happens? A. Well, Messenger certainly would not run.").

The Court finds that substantial evidence supports the jury's verdict for this limitation. Dr. Mowry presented Android source code to the jury and explained that the shared libraries receive data from the Messenger and Browser applications and detect structures in that data. *See id.* at 3017:23-3018:8, 3018:24-3019:13. Dr. Mowry also directly rebutted Dr. Jeffay's opinions regarding shared libraries, explaining that the shared libraries are stored in "a particular part of memory," are accessible to multiple applications, and are "definitely separate from the applications." *Id.* at 3023:3-3024:19. Dr. Mowry also acknowledged Ms. Hackborn's testimony but stated that it did not alter his opinions on shared libraries. *See id.* at 3025:12-25, 3052:1-14 (stating that a shared library is "not written as a standalone program, even though it is distinct and separate from the application"). Apple also had Dr. Mowry testify that the shared libraries receive data from the client applications. *See id.* at 3019:18-21, 3021:25-3022:3. The jury could have reasonably credited Dr. Mowry's explanations.

Dr. Mowry also testified that "glue code" supports his view that the shared libraries are distinct from the client applications because the glue code "connects together different modules or different pieces of software." *Id.* at 3020:22-3021:10. Samsung asserts that "glue code" is not a term of art. Mot. at 12. This objection is irrelevant. Regardless of whether "glue code" appears in textbooks, Dr. Mowry stated that the presence of such code indicates that this claim limitation is satisfied. The jury was entitled to assess the competing experts' credibility on this point. *See Kinetic*, 688 F.3d at 1362.

4. "Action Processor"

This Court construed "action processor" as "program routine(s) that perform the selected action on the detected structure." ECF No. 447 at 64. *Motorola* did not affect this construction, and

the parties did not offer additional testimony on this limitation. Dr. Mowry identified the startActivity() and resolveActivity() methods in the Android source code as "action processors." *See* Tr. at 873:8-20. He also testified that startActivity() "allows one program to launch another program and pass data to it," such that it performs the selected action. *Id.* at 2794:8-2796:21. According to Samsung, startActivity() cannot be an "action processor" because it does not directly perform an action (such as dialing a phone number or initiating an e-mail). However, the Court's construction of "action processor" is not limited in this way, and during claim construction, the parties disputed only whether an action processor must be "separate from a client." *See* ECF No. 447 at 14-20. Samsung fails to show that a reasonable jury could not determine that startActivity() performs selected actions by launching appropriate applications.

5. Jelly Bean Galaxy Nexus

For the Jelly Bean version of the Galaxy Nexus, Apple did not accuse the Messenger application, only Browser. Samsung contends that Browser lacks a "user interface enabling the selection of a *detected* structure" because Browser detects a structure (such as an e-mail address) only after a user selects it. The jury heard sufficient evidence to reject this argument. Dr. Mowry explained that the Jelly Bean Galaxy Nexus infringes because it allows users to perform a "long press"—a "press and hold" instead of a tap—that results in detection of a structure prior to selection of an action. Tr. at 866:3-870:8; *see also id.* at 869:10-17 ("The user eventually is holding down long enough that it becomes a selection through a press and hold."). At the summary judgment stage, the Court noted that whether the "long press" infringes would be a question for the jury. *See* ECF No. 1151 at 20-21. The jury could have reasonably accepted Dr. Mowry's explanation.

For the foregoing reasons, Samsung's motion for judgment as a matter of law of non-infringement of the '647 patent is DENIED.

B. Invalidity of Claim 9 of the '647 Patent

Samsung moves for judgment as a matter of law that no reasonable jury could find claim 9 of the '647 patent valid, arguing that Sidekick renders the claim obvious. Mot. at 14. The Court DENIES Samsung's motion.

Under 35 U.S.C. § 103, a patent is invalid as obvious "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. § 103. "A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic*, 688 F.3d at 1360. "Obviousness is a question of law based on underlying findings of fact." *In re Kubin*, 561 F.3d 1351, 1355 (Fed. Cir. 2009). Though obviousness is ultimately a question of law for the Court to decide de novo, in evaluating a jury verdict of obviousness, the Court treats with deference the implied findings of fact made by the jury. *Kinetic*, 688 F.3d at 1356–57. The Court must discern the jury's implied factual findings by interpreting the evidence consistently with the verdict and drawing all reasonable inferences in the nonmoving party's favor. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). The Court "first presume[s] that the jury resolved the underlying factual disputes in favor of the verdict [ ] and leave[s] those presumed findings undisturbed if they are supported by substantial evidence." *Kinetic*, 688 F.3d at 1356-57 (citation omitted). The underlying factual inquiries are: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, such as commercial success, long felt but unsolved needs, copying, praise, and the failure of others. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)); *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1311 (Fed. Cir. 2010). The Court then examines the ultimate legal

conclusion of obviousness de novo to determine whether it is correct in light of the "presumed jury fact findings." *Kinetic*, 688 F.3d at 1357. Here, the jury found claim 9 of the '647 patent valid. Thus, below, the Court first examines whether substantial evidence supported the jury's underlying factual conclusions that there was a significant gap between the prior art and the patent, and that there were secondary indicia of non-obviousness.

First, there was conflicting expert testimony on the question whether Sidekick rendered claim 9 obvious. Samsung's expert, Dr. Jeffay, testified Sidekick rendered claim 9 obvious because it disclosed all the limitations of claim 9 except for two, and that those two limitations – linking actions to the detected structures by using a "specified connection," and a "pop-up" menu – would have been obvious based on Sidekick. *See* ECF No. 1928 at 3092-94, 3098-99; ECF No. 1717 at 1810, 1841. Yet Apple's expert, Dr. Mowry, testified that Sidekick did not render the '647 obvious because in addition to missing those two elements, *see* ECF No. 1928 at 3101, Sidekick did not detect "multiple structures" nor link to multiple actions. *See* ECF No. 1926 at 2802-03, 2810; ECF No. 1928 at 3101, 3104. Specifically, Dr. Mowry explained Sidekick could only detect one structure—phone numbers—and showed the jury Sidekick code and explained how the code used only one pattern to detect all phone numbers, including domestic and international. *See* ECF No. 1926 at 2802-06, 2809. Dr. Mowry also testified that Sidekick could link only one action—dialing. *See* ECF No. 1926 at 2803, 2809; ECF No. 1928 at 3104. In response, Dr. Jeffay claimed Sidekick could detect multiple structures because it could detect multiple types of phone numbers (including domestic and international) by using different patterns, ECF No. 1717 at 1807-08, 1834-35. Dr. Jeffay also implicitly rejected Dr. Mowry's testimony that claim 9 requires multiple actions, given that Dr. Jeffay did not testify that "multiple actions" was one of the limitations of the claim. *Id.* at 1807. Finally, Dr. Mowry testified Sidekick failed to satisfy claim 9's requirement that the user interface enable "selecting a structure." ECF No. 1624 at 923-24; ECF No. 1926 at 2802. Dr. Jeffay rebutted this point by stating a user "can pick any number that they want." ECF No. 1717 at 1838-39. Based on this conflicting expert testimony, the jury was free to "make credibility determinations and believe the witness it considers more trustworthy." *Kinetic*, 688 F.3d at 1362

(citation omitted). The jury's finding of validity indicates that the jury made an implied finding of fact crediting Dr. Mowry's testimony that the gap between Sidekick and the '647 was significant because Sidekick did not disclose various elements of claim 9. *Id.* at 1363 ("[W]hether the prior art discloses the limitations of a particular claim is a question of fact to be determined by the jury[.]"); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1315 (Fed. Cir. 2009) (holding that jury was entitled to conclude, as a factual matter, that the prior art did not disclose this limitation). The Court must give that finding deference. *Kinetic*, 688 F.3d at 1356-57. Crediting Dr. Mowry's testimony over that of Dr. Jeffay, the Court cannot say that the jury's implied finding that these gaps were significant was not supported by substantial evidence in the record.

Further, the Court is unpersuaded by Samsung's claim that Dr. Mowry's testimony that claim 9 requires "multiple actions" fails as a matter of law under the Federal Circuit's construction of "linking actions to the detected structures," Mot. at 15, Reply at 9. The Federal Circuit held that claim 9 requires only that at least one action be linked to each detected structure. *Motorola*, 757 F.3d at 1307 ("The plain language of the claims does not require multiple actions for each structure[.]"). Apple acknowledges as much. Opp'n at 4. However, nothing in the Federal Circuit's order prohibited the jury from finding that the plain and ordinary meaning of claim 9 requires that there be multiple actions that are linked to multiple structures.

Second, the jury's finding of non-obviousness means the jury implicitly rejected Samsung's claim that there were no secondary indicia of non-obviousness. ECF No. 1717 at 1811-13 (Dr. Jeffay testifying there were no secondary considerations suggesting pop-up would not be obvious and that there is no evidence Samsung copied claim 9). Again, the Court must defer to this implicit factual finding. *See Kinetic*, 688 F.3d at 1356-57. Apple cites substantial evidence to support the jury's finding, including Google's recognition of the need and usefulness of the invention. *See* ECF No. 1624 at 881-83 (describing PX 116, email between Google engineers discussing that for "text objects" such as email addresses and physical addresses, "one of our most powerful features is the interaction of text objects [and] other applications on the phone. For instance, users can select a phone number . . . and it will launch the dialer[.]").

In light of these factual findings, the Court now considers whether, as a matter of law, it would have been obvious to a designer of ordinary skill in the art to bridge the gap the jury implicitly found. While Dr. Jeffay testified it would have been obvious to use a pop-up menu or to link actions using a "specified connection" based on Sidekick, Dr. Jeffay did not explain why it would have been obvious for an engineer of ordinary skill to combine additional actions with Sidekick's dialing action such that there are *multiple* actions linked overall. Nor did he explain why, assuming Apple is correct that detecting only phone numbers does not satisfy the claim's requirement to detect multiple structures, it would have been obvious to create an invention that detects multiple structures such as postal addresses, email addresses, and telephone numbers. ECF No. 1928 at 3103 (Dr. Mowry describing different kinds of structures). Because Samsung has failed to identify the necessary evidence, the Court cannot conclude there is clear and convincing evidence that it would have been obvious to bridge these gaps between Sidekick and claim 9.

In sum, in light of the gaps between Sidekick and claim 9, and lack of clear evidence by Samsung as to why such a gap would have been obvious to bridge, the Court finds that as a matter of law, Samsung has not produced clear and convincing evidence that the claimed invention was obvious in light of the prior art. Accordingly, the Court DENIES Samsung's motion for judgment as a matter of law that claim 9 of the '647 patent is invalid.

C. Invalidity of Claim 8 of the '721 Patent

The jury found claim 8 of the U.S. Patent No. 8,046,721 ("the '721 patent") not invalid. Samsung moves for judgment as a matter of law that no reasonable jury could find claim 9 not invalid. Samsung moves on two grounds: (1) obviousness, and (2) indefiniteness. The Court addresses each in turn below, and DENIES Samsung's motion.

1. Obviousness

Claim 8 of the '721 is dependent on claim 7. The claims recite as follows:

> 7. A portable electronic device, comprising:
> a touch-sensitive display;
> memory;
> one or more processors; and
> one or more modules stored in the memory and configured for execution by

the one or more processors, the one or more modules including instructions:

to detect a contact with the touch-sensitive display at a first predefined location corresponding to an unlock image;

to continuously move the unlock image on the touch-sensitive display in accordance with movement of the detected contact while continuous contact with the touch-sensitive display is maintained, wherein the unlock image is a graphical, interactive user-interface object with which a user interacts in order to unlock the device; and

to unlock the hand-held electronic device if the unlock image is moved from the first predefined location on the touch screen to a predefined unlock region on the touch-sensitive display.

8. The device of claim 7, further comprising instructions to display visual cues to communicate a direction of movement of the unlock image required to unlock the device.

'721 Patent cls. 7, 8.

Samsung argues claim 8 is obvious as a matter of law because the Neonode N1 QuickStart Guide and a video and paper by Plaisant together disclosed all the limitations in claim 8. Mot. at 16-17. Samsung cites Dr. Greenberg's testimony that the Neonode Guide discloses a portable electronic phone with a touch-sensitive display with a left-to-right unlocking gesture, and that the only claim element missing from the Neonode is a moving *image* accompanying the sweep gesture. ECF No. 1717 at 1967-69; 1975; *see also* DX 342.013 (Neonode Guide describing how to "right sweep to unlock" the phone). Dr. Greenberg also testified about the Plaisant paper, titled "Touchscreen Toggle Design," which describes "touchscreens called toggles that switch state from one state to another, things like on or off, and that could include things like lock to unlock." ECF No. 1717 at 1969-70. He testified Plaisant described toggles that operate "by sliding actions," called "sliders." *Id.* at 1971. Dr. Greenberg concluded that Plaisant filled the missing claim element in the Neonode because Plaisant disclosed a sliding *image* that could be moved from one predefined location to another to change the state of the device. *Id.* at 1970-72; 1975. Thus, Dr. Greenberg testified that the combination disclosed "all of the claim limitations." *Id.* at 1975-76. Dr. Greenberg further concluded that the person of ordinary skill in the art would be "highly interested in both of them" and would "think it natural to combine these two" because "they both deal with touch base systems, they both deal with user interfaces. They both talk about changing

state . . . they both specifically describe how a sliding action is used to prevent accidental activation." *Id.* at 1974. He reasoned that a person would think to implement sliders on a touchscreen phone because that "is just a very routine thing to think about in terms of interaction design." *Id.* at 1974-75. Dr. Greenberg's testimony that the claim was invalid for obviousness notwithstanding, the Court does not agree that Samsung presented clear and convincing evidence of obviousness.

First, there was conflicting expert testimony on the question of whether the combination disclosed all the claim elements. Apple's expert, Dr. Cockburn, testified that although the Neonode describes unlocking a mobile phone using a "right sweep" gesture, it fails to disclose several key claim elements relating to an "unlock image" and its movement, including that there was "no predefined location corresponding to an unlock image," "no continuous movement of an unlock image," "no unlocking the device if the image is moved from one location to another," and "no visual cues communicating the direction of movement" since "there's no image to move." ECF No. 1926 at 2864-65. He also testified that Plaisant, which describes a touchscreen user interface for turning on and off home appliance systems, fails to supply these missing claim elements because Plaisant does not disclose using an unlock image to unlock a portable electronic device. *Id.* at 2865-67; DX 344 (Plaisant paper noting that the research was conducted in collaboration with a group whose focus is on "providing state-of-the-art systems that are easy for the homeowner to use."). Where, as here, the parties offered "conflicting expert testimony, the jury was free to 'make credibility determinations'[.]" *Kinetic*, 688 F.3d at 1362 (citation omitted). In light of the jury's validity finding, the Court "must infer that the jury found [Dr. Cockburn] to be credible and persuasive" when testifying that the prior art, even when combined, did not disclose all claim elements. *Id.*

Second, Dr. Cockburn testified, contrary to Dr. Greenberg, that a person of ordinary skill in the art would not have been motivated to combine the Neonode and Plaisant in such a way as to invent claim 8. ECF No. 1926 at 2866. He provided two reasons. First, Plaisant described "toggle designs" intended to be used with a "touch screen [that] would be mounted into a wall or into

cabinetry" for controlling "office or home appliances, like air conditioning units or heaters." *Id.* at 2865. A reasonable jury could infer from this testimony that an ordinary artisan would not have been motivated to combine elements from a wall-mounted touchscreen for home appliances and a smartphone, particularly in view of the "pocket dialing" problem specific to mobile devices that Apple's invention sought to address. *See* ECF No. 1623 at 636.

Additionally, Dr. Cockburn explained that Plaisant "teach[es] away from the use of sliding," because it "tells you not to use the sliding [toggle] mechanism." ECF No. 1926 at 2865-66. What a piece of prior art teaches and motivation to combine prior art are both questions of fact. *Cheese Sys. Inc. v. Tetra Pak Cheese & Powder Sys. Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013). "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (citation omitted). Here, Dr. Cockburn explained that Plaisant teaches that sliders were "not preferred" among the toggle mechanisms, and "tells us that toggles that are pushed seem to be preferred over toggles that slide; and the sliding is more complex than simply touching; and also that sliders are harder to implement." ECF No. 1926 at 2866. Dr. Greenberg disputed this point, and testified that Plaisant "teaches that the sliding toggles worked" and noted how Plaisant states that the fact that "user[s] use [sliders] correctly is encouraging." ECF No. 1717 at 1972-73.

The Court notes that there is language in Plaisant to arguably support either expert's interpretation concerning whether Plaisant "teaches" away from the use of sliders. This is because Plaisant evaluates the pros and cons of various types of "toggles" used to change the state of a device and concludes generally that "the evaluation of the toggles showed some important differences in personal preferences." DX 344.002. More specifically, on the one hand, Plaisant states that "toggles that are pushed seemed to be preferred over the toggles that slide," "sliding is a more complex task than simply touching," and "sliders are more difficult to implement than buttons[.]" DX 344.002. On the other hand, Plaisant seems to encourage the use of sliders by

noting that users "used sliding motions successfully to manipulate the sliding toggles," by noting that the fact that "user[s] use [sliders] correctly is encouraging," and by noting that "another advantage of the sliding movement is that it is less likely to be done inadvertently therefore making the toggle very secure[.] This advantage can be pushed further and controls can be designed to be very secure by requiring more complex gestures[.]" DX 344.002.

As noted above, what a piece of prior art teaches is a question of fact for the jury. The Court concludes that in light of Dr. Cockburn's testimony and the language in Plaisant suggesting Plaisant taught away from sliders, the jury's implied finding of fact that there would have been no motivation to combine the Neonode and Plaisant was supported by substantial evidence in the record. *See Teleflex, Inc., v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1334 (Fed. Cir. 2002) (holding that expert testimony of a "lack of motivation to combine . . . constitutes substantial evidence of nonobviousness"); *Grp. One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1304 (Fed. Cir. 2005) (reversing judgment as a matter of law of obviousness in view of conflicting expert testimony on motivation to combine); *Harris Corp. v. Fed. Express Corp.*, 502 Fed. Appx. 957, 968 (Fed. Cir. 2013) (unpublished) (affirming denial of motion for judgment as a matter of law of obviousness where there was conflicting evidence regarding whether prior art taught away from the invention because the prior art "also included certain facts that might have discouraged an artisan from using [the] spread spectrum.").

Finally, the jury's validity finding means the jury implicitly rejected Samsung's claim that there were no secondary indicia of non-obviousness. This finding is supported by substantial evidence including industry praise specifically for Apple's slide to unlock invention. *See* PX 118 (January 2007 MacWorld video featuring Steve Jobs' live demonstration of slide to unlock on the iPhone to an audience that began cheering). Apple also introduced various Samsung internal documents noting how Apple's slide to unlock feature is precise, easy to use, and intuitive. *See* PX 119 at 11 (presentation prepared by Samsung's European design team in June 2009 calling Apple's slide to unlock invention a "[c]reative way[] of solving UI complexity."); PX 121 at 100 (Samsung software verification group document noting that unlike Samsung's "victory" phone, iPhone's

"unlocking standard is precise as it is handled through sliding, and it allows prevention of any wrong motion," and recommending a "direction of improvement" to make it the "same as iPhone, clarify the unlocking standard by sliding"); PX 157 at 19-20 (Samsung document recommending to improve Samsung phone by making it like the iPhone which is "easy to unlock, [given that] lock screen always shows guide text or arrow like the iPhone" and to make the lock icon's movement "be smooth and continuous" like the iPhone); PX 219 at 14 (Samsung document noting that the iPhone "intuitively indicate[s] the direction and length to move when unlocking on the lock screen"); ECF No. 1623 at 638-50 (Dr. Cockburn testimony that these various Samsung documents recognized the advantages of claim 8); *Power-One, Inc. v. Artesyn Techs, Inc.*, 599 F.3d 1343, 1352 (Fed. Cir. 2010) (noting that praise in the industry, and specifically praise from a competitor tends to indicate that the invention was not obvious).

Furthermore, Apple introduced evidence of a long-felt need for its invention. *See* ECF No. 1623 at 636-37 (Dr. Cockburn's testimony that phone designers had been trying to solve the problem of accidental activation and the "pocket dial problem" before the iPhone existed, but had only come up with "frustrat[ing]" solutions); ECF No. 1926 at 2869 (explaining that there had not been a good mechanism for unlocking "for a long time."); ECF No. 1623 at 599, 603, 611 (Greg Christie, Apple's Human Interface Vice President, testifying about concerns over pocket-dial problem). In light of this evidence, the Court must defer to the jury's implicit factual finding that there were secondary indicia of non-obviousness. *See Kinetic*, 688 F.3d at 1356-57.

In light of the jury's factual findings, the Court concludes it would be error to "fail[] to defer to the jury's factual findings and grant[] JMOL on obviousness." *Id*. at 1371. Because there is no clear and convincing evidence that it would have been obvious to bridge the gaps between the prior art and claim 8, the Court DENIES Samsung's motion for judgment as a matter of law that claim 8 of the '721 is invalid as obvious.

2. Indefiniteness

Samsung argues that the '721 patent is indefinite as a matter of law because the claim term "unlock" is indefinite. Mot. at 19. To be valid, claims must "particularly point[] out and distinctly

claim[] the subject matter which the applicant regards as the invention." 35 U.S.C. § 112. The purpose of this definiteness 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." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (abrogated on other grounds by *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014)). "[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The Supreme Court has noted that "some modicum of uncertainty" must be tolerated, given the inherent limitations of language and because "absolute precision is unattainable." *Id.* at 2128-29. The Court DENIES Samsung's motion.

While Samsung contends that the term "unlock" is indefinite because there is insufficient clarity as to what it means for a device to be "locked" versus "unlocked," the specification provides a definition that establishes when a device is "locked" and when it is "unlocked:"

> In the user-interface lock state (hereinafter the "lock state"), the device is powered on and operational but ignores most, if not all, user input. That is, the device takes no action in response to user input and/or the device is prevented from performing a predefined set of operations in response to the user input. . . .
> In the user-interface unlock state (hereinafter the "unlock state"), the device is in its normal operating state, detecting and responding to user input corresponding to interaction with the user interface. . . . An unlocked device detects and responds to user input for navigating between user interfaces, entry of data and activation or deactivation of functions.

'721 Patent col.7 l.64-col.8 l.45. The specification, therefore, provides guidance as to what it means when the device is "locked." According to the specification, when the device is locked it is "powered on and operational but ignores most, if not all, user input." *Id.* While Samsung claims it is unclear what the phrase "most, if not all" means, the specification further describes what "most, if not all, user input" means. According to the specification, "the locked device responds to user input corresponding to attempts to transition the device to the user-interface unlock state or powering the device off, but does not respond to user input corresponding to attempts to navigate

between user interfaces." *Id.* at 8:13-17. The specification later confirms that distinction between "unlocked" state and a "locked" state when stating that an "unlocked device" "detects and responds to user input for navigating between user interfaces[.]" *Id.* at 8:39-40. Accordingly, in light of these explanations, the Court finds that the claim provides sufficient clarity as to the term "unlock," and that the term does not meet the standard of indefiniteness such that claim 8 as a whole "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus,* 134 S. Ct. at 2124.

The trial record supports the Court's conclusion that Samsung has failed to prove indefiniteness by clear and convincing evidence. While the Court acknowledges that discerning whether a given device is in a "locked" or "unlocked" state might be difficult in certain circumstances for the general public, the Supreme Court has noted that "one must bear in mind [] that patents are 'not addressed to lawyers, or even to the public generally,' but rather to those skilled in the relevant art." *Id.* at 2128; *see also Carnegie Steel Co. v. Cambria Iron Co.*, 185 U.S. 403, 437 (1902) (stating that "any description which is sufficient to apprise [those skilled in] the art of the definite feature of the invention, and to serve as a warning to others of what the patent claims as a monopoly, is sufficiently definite to sustain the patent"). Here, Dr. Cockburn, a person of at least ordinary skill in the art, testified that he had "no difficulty at all in understanding the difference between a locked state and an unlocked state" when he read claim 8. ECF No. 1623 at 634. He further testified that the "the plain and ordinary meaning" of the term is clear. *Id*. at 633. Perhaps more convincingly, even Samsung's own expert, Dr. Greenberg, was able to explain when a "device will unlock" when explaining the '721 patent and prior art to the jury. *See* ECF No. 1717 at 1968.

Accordingly, the Court finds that one of ordinary skill in the art could reasonably ascertain the scope of claim 8. The Court accordingly DENIES Samsung's motion for judgment as a matter of law that claim 8 of the '721 is invalid as indefinite.[1]

D. Non-infringement of the '721 Patent

[1] The Court notes that this Court's preliminary injunction order previously concluded that the term "unlock" is not indefinite. ECF No. 221 at 52.

The jury found that the Admire, Galaxy Nexus, and Stratosphere infringe claim 8 of the '721 patent. ECF No. 1884 at 5. Samsung moves for judgment as a matter of law that no reasonable jury could find that these devices infringe the '721. Mot. at 19. The Court DENIES Samsung's motion.

First, Samsung argues that no reasonable jury could find that the Galaxy Nexus infringes. Samsung cites how claim 8 requires detecting "a contact with the touch-sensitive display at a first predefined location corresponding to an unlock image" and continuously moving "the unlock image on the touch sensitive display in accordance with movement of the detected contact." '721 Patent cols.19-20. Samsung argues that "[t]he plain language thus requires that the image with which the user makes contact be the *same image* that then moves with user contact." Mot. at 19 (emphasis added). Accordingly, Samsung argues that because "the image with which the user makes contact on the Galaxy Nexus devices – a padlock in a circle – *disappears* upon user contact and is replaced by another, different image," this limitation of the claim is not met. *Id.* (emphasis in original) (citing testimony from Dr. Greenberg that the Galaxy Nexus does not infringe because the image "has to be the same . . . it can't be different," ECF No. 1717 at 1980-81).[2] Samsung emphasizes that Apple's own expert, Dr. Cockburn, admitted at trial that the image changes upon user contact. Mot. at 20 (citing ECF No. 1623 at 740-42). Samsung is correct that Dr. Cockburn testified that when the user contacts the unlock image in the Ice Cream Sandwich version of the Galaxy Nexus, "the image will animate, it'll change its representation slightly" and that in the Jellybean version, "the image changes slightly" to a "circle that's a spotlight onto [a series of] dots." ECF No. 1623 at 676-78, 742; *see also* ECF No. 1926 at 2861.

However, the Court disagrees that no reasonable jury could find that the Galaxy Nexus infringes claim 8. Because the Court did not construe the term "unlock image," the jury had to apply its plain and ordinary meaning, and was not obligated to accept Samsung's contention that an "unlock image" must consist of the same, single image. The jury's implicit rejection of Samsung's

[2] Dr. Greenberg testified that in the Ice Cream Sandwich version of the Galaxy Nexus, the new image is a larger circle. ECF No. 1717 at 1981. In the Jelly Bean Version, the new image is a series of dots. *Id.*

argument is supported by substantial evidence. Dr. Cockburn testified that he did not agree with Dr. Greenberg's view that the accused phones do not infringe simply because the unlock image changes. *See* ECF No. 1623 at 678-79, 742 (interpreting claim 8 to allow multiple images, given that the specification teaches that "the visual representation of the unlock image can change" and explicitly states the unlock image "may be animated"); *see also* ECF No. 1926 at 2861. The jury was free to weigh the experts' testimony and determine for itself whether the Galaxy Nexus contains an "unlock image" under the plain meaning of that term. Indeed, the reasonableness of the jury's implicit finding that Dr. Cockburn's interpretation of the claim was correct is demonstrated by how this Court rejected precisely the same argument Samsung raises now in this Court's preliminary injunction order in this case. Then, as now, Samsung argued that "the term 'unlock image' must refer to the same single 'unlock image'" because the claims first refer to "an unlock image" and later refer to "the unlock image." *Compare* ECF No. 221 at 44, *with* Mot. at 19. The Court rejected Samsung's proffered construction, concluding that "Apple's argument that 'unlock image' may refer to more than one image is also supported by the specification[,] [which] . . . demonstrate[s] 'an unlock gesture corresponding to *one of a plurality of unlock images*, according to some embodiments of the invention.'" ECF No. 221 at 45 (internal quotation marks and citations omitted).

Nor is the Court convinced by Samsung's more specific argument that the Jelly Bean version of the Galaxy Nexus cannot infringe because Apple did not present any evidence that the second unlock image—which Dr. Greenberg testified is a "series of dots," ECF No. 1717 at 1980-81—"moves" and thus the limitation that the unlock image continuously move in accordance with the detected contact is not met. Mot. at 21; *see* ECF No. 1717 at 1981 (Dr. Greenberg's testimony that "the dots don't actually move at all. The only thing that happens is that individual dots get brighter or dimmer."). The jury could have reasonably credited Dr. Cockburn's testimony that the second image was rather a "circle that's a spotlight onto [a series of] dots." ECF No. 1623 at 742; *see also id.* at 677. Dr. Cockburn testified that the "continuously move" element is met because the "spotlight effect on the dots" moves in accordance with the user's contact. ECF No. 1623 at 677;

ECF No. 1926 at 2861. In support, Dr. Cockburn showed the jury PDX 46, a demonstrative of the Galaxy Nexus which indeed shows a circle that is a spotlight effect on a series of dots moving in accordance with the user's contact. *See* ECF No. 1623 at 677. The demonstrative shows that, contrary to Dr. Greenberg's opinion, the dots and the spotlight on them move in accordance with the user's contact. The jury could have confirmed Dr. Cockburn's testimony and the movements shown in PDX 46 by actually testing the slide to unlock feature in the Galaxy Nexus phones in evidence. *See* JX 29 A-I.

Further, while Samsung contends Dr. Cockburn did not offer any evidence in support of his contention that the unlock image in the Galaxy Nexus is a "graphical interactive user interface object" that may change form, Mot. at 20, Dr. Cockburn did demonstrate how the unlock image changes appearance by showing the jury demonstratives of representative Galaxy Nexus devices. *See* ECF No. 1623 at 676-77 (showing PDX 44, PDX 46). The jury was free to confirm Dr. Cockburn's conclusions and demonstratives by testing the Galaxy Nexus phones in evidence. *See* JX 29A-I.

Finally, the Court rejects Samsung's argument that judgment of non-infringement should be granted as to the Admire, Galaxy Nexus, and Stratosphere because Apple offered no evidence of any "instructions" required by claim 8. Mot. at 21 (citing '721 Patent cols.19-20). To the contrary, the jury heard Dr. Cockburn's expert testimony that because the accused phones are computing devices, they necessarily had "software, processors, [and] memory." ECF No. 1623 at 659; *see also id.* at 630 ("[S]oftware components are just a form of instructions); *id.* at 626 ("Source code is the set of instructions that are on a computing device that enable it to become operative in some way. So the instructions to determine the behavior of the device, and that's software.").

In sum, because there is substantial evidence to support the jury's findings of infringement, the Court DENIES Samsung's motion for judgment as a matter of law that the Admire, Galaxy Nexus, and Stratosphere do not infringe claim 8.

E. Willful Infringement of Claim 8 of the '721 Patent

Samsung moves for judgment as a matter of law that Samsung did not willfully infringe claim 8 of the '721 patent. Mot. at 21. To establish willfulness, "a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. The state of mind of the accused infringer is not relevant to this objective inquiry. If this threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk . . . was either known or so obvious that it should have been known to the accused infringer." *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (internal citation omitted). Thus, the willfulness inquiry is a two-prong analysis, requiring an objective inquiry and a subjective inquiry. The objective inquiry is a question for the Court, and the subjective inquiry is a question for the jury. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1007 (Fed. Cir. 2012). The objective inquiry requires a showing of "objective recklessness" by the infringer. *In re Seagate Tech.*, 497 F.3d at 1371; *Bard*, 682 F.3d at 1006 ("*Seagate* also requires a threshold determination of objective recklessness.").

Here, the jury found that, as a subjective matter, Samsung willfully infringed the '721 patent. ECF No. 1884 at 7. Because both prongs must be established for the Court to make an ultimate finding of willfulness, failure on the objective prong defeats a claim of willfulness. Because the Court finds no objective willfulness for the reasons set forth below, the Court need not consider whether the jury's finding of subjective willfulness was supported by substantial evidence. *See Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 920 F. Supp. 2d 1079, 1108 (N.D. Cal. 2013) (declining to examine whether the jury's finding on subjective willfulness was supported by substantial evidence because the objective willfulness prong was not satisfied). The Court GRANTS Samsung's motion.

As noted above, to establish objective willfulness, Apple must prove by clear and convincing evidence that there was an "objectively high likelihood that [Samsung's] actions constituted infringement of a valid patent." *Bard*, 682 F.3d at 1005 (citing *Seagate*, 497 F.3d at 1371). If Samsung had an objectively reasonable defense to infringement, its infringement cannot be said to be objectively willful, and objective willfulness fails as a matter of law. *See Spine*

Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc., 620 F.3d 1305, 1319 (Fed. Cir. 2010) ("The 'objective' prong of *Seagate* tends not to be met where an accused infringer relies on a reasonable defense to a charge of infringement."); *Bard*, 682 F.3d at 1006 (objective willfulness determination "entails an objective assessment of potential defenses based on the risk presented by the patent. Those defenses may include questions of infringement but also can be expected in almost every case to entail questions of validity[.]"). Samsung's defense is not reasonable if it is "objectively baseless." *Id.* at 1007-08. An "objectively baseless" defense is one which "no reasonable litigant could realistically expect [to] succe[ed] on the merits." *Id.* at 1007 (citation omitted).

The Court finds that Samsung's defense to infringement of claim 8 was not objectively baseless. As a preliminary matter, as noted above, Dr. Cockburn and Dr. Greenberg had differing opinions concerning whether Plaisant "teaches" away from the use of sliders and thus whether the person of ordinary skill in the art would have a motivation to combine Plaisant and the Neonode. This is not surprising in light of the fact that there is language in Plaisant to support either expert's interpretation. This is because Plaisant evaluates the pros and cons of various types of "toggles" used to change the state of a device and concludes generally that "the evaluation of the toggles showed some important differences in personal preferences." DX 344.002. On the one hand, Plaisant states that "toggles that are pushed seemed to be preferred over the toggles that slide," "sliding is a more complex task than simply touching," and "sliders are more difficult to implement than buttons[.]" DX 344.002. On the other hand, Plaisant seems to encourage the use of sliders by noting that users "used sliding motions successfully to manipulate the sliding toggles," by noting that the fact that "user[s] use [sliders] correctly is encouraging," and by noting that "another advantage of the sliding movement is that it is less likely to be done inadvertently therefore making the toggle very secure[.] This advantage can be pushed further and controls can be designed to be very secure by requiring more complex gestures[.]" DX 344.002.

While Dr. Cockburn testified that there was no motivation to combine the two references, Dr. Greenberg testified to the contrary, noting how Plaisant "teaches that the sliding toggles worked" and how Plaisant states that the fact that "user[s] use [sliders] correctly is encouraging."

ECF No. 1717 at 1972-73. Based on Dr. Greenberg's testimony and the language in Plaisant suggesting Plaisant encouraged use of sliders, the Court cannot find that Samsung's reliance on an invalidity defense was objectively baseless. Further, a motivation to combine may "come from the nature of a problem to be solved, leading inventors to look to references relating to possible solutions to that problem." *Ruiz v. Found. Anchoring Sys., Inc.*, 357 F.3d 1270, 1276-77 (Fed. Cir. 2004) (citation omitted) ("[B]ecause the prior art references address the narrow problem of underpinning existing building foundations, a person seeking to solve that exact same problem would consult the references and apply their teachings together."). Here, in light of Dr. Greenberg's opinion and the language in the prior art references, the reasonable litigant could have believed that the two references provided a motivation to combine by describing a similar solution – the use of sliding motions – to solve the problem of inadvertent activation in touchscreen devices. *See* DX 344.002 (Plaisant suggesting sliding toggles are preferable for preventing inadvertent activation in touchscreen devices: "[A]nother advantage of the sliding movement is that it is less likely to be done inadvertently therefore making the toggle very secure[.]"); DX 342.013 (Neonode citing a similar inadvertent activation problem in mobile phones and advocating a similar sliding solution by stating, "[T]o make sure no unintentional calls are made[,] . . . [s]weep right to unlock your unit").

Apple argues Samsung had no reasonable invalidity defense because this Court previously concluded at the preliminary injunction phase that Apple was likely to withstand Samsung's obviousness challenge to the validity of the '721 patent. Opp'n at 22-23 (citing ECF No. 221 at 51). However, the Court finds that its prior conclusion at the preliminary injunction stage does not render Samsung's reliance on its invalidity defense objectively baseless. At the preliminary injunction stage, Samsung failed to show that the Neonode qualified as a prior art reference, and accordingly the Court disregarded the Neonode in its invalidity analysis. ECF No. 221 at 50. Further, the Court noted that Samsung's prior expert failed to identify any reason to combine Plaisant with "a handheld device." *Id.* at 50-51. Here, in contrast, there is no dispute that the Neonode is a prior art reference, and Samsung's expert Dr. Greenberg has provided a reason to

combine Plaisant and the Neonode. *See* ECF No. 1717 at 1974. Thus, the Court finds that its prior conclusion at the preliminary injunction stage does not render Samsung's reliance on its invalidity defense based on the Neonode and Plaisant objectively baseless.

Further, while Apple argues that the U.S. Patent and Trademark Office ("PTO") considered the Neonode and Plaisant yet still issued claim 8, Opp'n at 22, the PTO's determinations are not dispositive because the Federal Circuit has found no objective willfulness even where a defendant's invalidity defense was based on a prior art reference that was before the PTO and the PTO found the prior art reference did not invalidate the claim. *See, e.g.*, *Spine Solutions*, 620 F.3d at 1319-20 (reversing district court's denial of defendant's motion for judgment as a matter of law of no willfulness because defendant had an objectively reasonable invalidity defense based on two prior art references, irrespective of the fact that the PTO had the two prior art references before it when issuing the patent); *Univ. of Pittsburgh of Commonwealth Sys. of Higher Educ. v. Varian Med. Sys., Inc.*, 561 Fed. Appx. 934, 943-45 (Fed. Cir. 2014) (unpublished) (reversing district court's finding that defendant's invalidity defense was objectively unreasonable, despite acknowledging that the PTO had found that the prior art the defendant relied upon did not invalidate the asserted claims when reexamining the patent).

In sum, Samsung's infringement of the '721 patent was not objectively willful because Samsung's invalidity defense was not objectively baseless. Accordingly, Apple has not met its burden to show clear and convincing evidence that Samsung acted despite an objectively high likelihood that its actions would infringe a valid patent. Samsung's motion for judgment as a matter of law that its infringement of the '721 patent was not willful is GRANTED.

F. Invalidity of the '172 Patent

Samsung moves for judgment as a matter of law that no reasonable jury could find claim 18 of the '172 patent not invalid. Mot. at 25-26. Claim 18 of the '172 patent covers a particular form of text correction, in which a "current character string" is displayed in a first and second area of a touch screen display. JX 13. The user can replace a mistyped word (*i.e.*, the "current character string") by selecting a delimiter or selecting a replacement word in the second area. *Id.* The user

can also keep the "current character string" by selecting it in the second area. *Id.* The jury found claim 18 of the '172 patent not invalid. Samsung claims that a combination of two prior art references, U.S. Patent No. 7,880,730 ("Robinson") and International Publication No. WO 2005/008899 A1 ("Xrgomics"), render claim 18 obvious. Below, the Court first examines whether substantial evidence supported the jury's underlying factual conclusions that there was a significant gap between the prior art and the patent and that there were secondary indicia of non-obviousness. The Court DENIES Samsung's motion.

First, the Court notes that there was conflicting expert testimony on the question of obviousness. Samsung's expert, Dr. Wigdor, testified that Robinson disclosed every limitation of claim 18 except for one—that the "current character string [appear] in the first area." ECF No. 1717 at 2015-17; 2023-24. Wigdor testified that Xrgomics disclosed that limitation by including the current character string in the first area, and that the person of ordinary skill in the art would combine Robinson and Xrgomics to fill the missing element in Robinson. *Id.* at 2018-19; 2023-24.

However, Apple's expert, Dr. Cockburn, testified that Robinson missed several limitations of claim 18 in addition to the "current character string in the first area" limitation. ECF No. 1927 at 2903-05. For instance, Robinson missed the limitation that "the current character string in the first area is replaced with the suggested replacement string when the user presses a delimiter." *Id.* at 2905. Dr. Cockburn further testified that Xrgomics, though it discloses the "current character string in the first area" limitation, *id.* at 2905, similarly does not disclose the limitation that "the current character string in the first area is replaced with the suggested replacement string when the user presses a delimiter" because Xrgomics offers alternative words that *complete* the current character string in the first area rather than *correct* that current character string. *Id.* at 2904-05 (testifying that Xrgomics is a "word completion" patent, not a "spelling correction" patent and that "there's no correction" going on in Xrgomics because Xrgomics just adds letters to the end of the current character string – *i.e.*, it offers alternative words that complete that word). Finally, contrary to what Dr. Wigdor testified, Dr. Cockburn opined that the combination of Robinson and Xrgomics did not disclose the elements of claim 18 and did not render claim 18 obvious because Xrgomics did not

"fill th[e] gaps" in Robinson. *Id.* Based on this conflicting expert testimony, the jury was free to "make credibility determinations and believe the witness it considers more trustworthy." *Kinetic*, 688 F.3d at 1362 (citation omitted). The jury's finding of validity indicates that the jury made an implied finding of fact affirming Dr. Cockburn's testimony that Robinson and Xrgomics did not disclose all the elements of claim 18 and rejecting Dr. Wigdor's opinion of obviousness. *Id.* at 1363 ("[W]hether the prior art discloses the limitations of a particular claim is a question of fact to be determined by the jury."). In other words, the jury implicitly rejected Samsung's argument that it would be obvious to combine two things—the "current character string in the first area" feature in Xrgomics and Robinson's feature of having a suggested replacement string in the second area—in order to come up with claim 18's limitation that "the current character string in the first area is replaced with the suggested replacement string when the user presses a delimiter." Mot. at 27. The Court must give that finding deference. *Kinetic*, 688 F.3d at 1356-57. Crediting Dr. Cockburn's testimony over Dr. Wigdor's, the Court cannot say that the jury's implied finding that the gap between the prior art and claim 18 was significant was not supported by substantial evidence.

Second, the jury's finding of non-obviousness means the jury implicitly rejected Samsung's claim, and Dr. Wigdor's testimony, that there were no secondary indicia of non-obviousness. ECF No. 1717 at 2024; Mot. at 28. The Court must defer to this implicit factual finding. *See Kinetic*, 688 F.3d at 1356-57. Apple cites substantial evidence to support the jury's finding, including Dr. Cockburn's testimony that there was industry praise for claim 18 as illustrated in Samsung's internal documents and comments from carriers "that they want . . . the claim 18 mechanism." ECF No. 1927 at 2906; ECF No. 1623 at 698-700 (discussing PX 168, a Samsung internal document reflecting T-Mobile's request that Samsung modify its autocorrect technology to adopt the functionality of claim 18).[3]

[3] Samsung has directed the Court to the PTO's recent non-final rejection of claim 18 in an *ex parte* reexamination. *See* ECF No. 1951. However, this preliminary decision does not affect the outcome here. The Federal Circuit has noted that initial rejections by the PTO are generally entitled to minimal weight. *Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1584 (Fed. Cir. 1996) (noting that non-final office actions are so commonplace that they "hardly justif[y] a good faith belief in the invalidity of the claims" for willfulness purposes) (citation omitted); *see also id.* at 1584 (stating that a grant of a request for reexamination "does not establish a likelihood of patent invalidity"); *Q.G. Prods. v. Shorty, Inc.*, 992 F.2d 1211, 1213 (Fed. Cir. 1993) (noting that initial

In light of the jury's factual findings, this Court cannot conclude that there is clear and convincing evidence that it would have been obvious, as a matter of law, to bridge the gaps between the prior art and claim 18. Accordingly, the Court DENIES Samsung's motion for judgment as a matter of law that claim 18 of the '172 patent is invalid.

G. Invalidity of Claim 25 of the '959 Patent

The jury determined that asserted claim 25 of Apple's '959 patent was not invalid. *See* ECF No. 1884 at 7. Claim 25 depends from claim 24 and recites:

> 24. A computer readable medium for locating information from a plurality of locations containing program instructions to:
> receive an information identifier;
> provide said information identifier to a plurality of heuristics to locate information in the plurality of locations which include the Internet and local storage media;
> determine at least one candidate item of information based upon the plurality of heuristics; and
> display a representation of said candidate item of information.
>
> 25. The computer readable medium of claim 24, wherein the information identifier is applied separately to each heuristic.

'959 Patent cls. 24, 25. Samsung moves for judgment as a matter of law that claim 25 is invalid, based on three grounds: (1) anticipation, (2) obviousness, and (3) indefiniteness. The Court addresses each basis in turn and DENIES Samsung's motion.

1. Anticipation

First, Samsung contends that the WAIS reference anticipates claim 25. A patent claim is invalid for anticipation under 35 U.S.C. § 102 "if each and every limitation is found either expressly or inherently in a single prior art reference." *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1374 (Fed. Cir. 2001). Whether a patent is anticipated is a question of

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patent "rejections often occur as a part of the normal application process"); *Minemyer v. B–Roc Reps., Inc.*, 2012 WL 346621, at *4 (N.D. Ill. Feb. 2, 2012) ("The cases are virtually uniform in holding that office actions at the PTO are not relevant on the question of patent invalidity or willful infringement. . . . The cases recognize that interim acceptances, rejections and adjustments are the norm at the PTO."). Accordingly, the Court does not find that the PTO's non-final office action is a sufficient basis for overturning the jury verdict.

fact. *Green Edge Enters., LLC v. Rubber Mulch Etc., LLC*, 620 F.3d 1287, 1297 (Fed. Cir. 2010). Anticipation must be shown by clear and convincing evidence. *Id.* at 1292.[4]

At trial, Samsung relied on software called freeWAIS-sf 2.0 (DX 301, the "WAIS" reference) as alleged prior art, and presented testimony from three witnesses supposedly showing that the software qualified as prior art and disclosed all limitations of claim 25. "WAIS" is an acronym for "Wide Area Information Server." Tr. at 1845:18-21. Samsung first called Brewster Kahle, founder of the Internet Archive, to testify that he conceived of the WAIS project as a system that could "basically search your own hard drive, your own personal computer of e-mail and memos or, or presentations and the like." *Id.* at 1845:3-5, 1846:4-16, 1853:21-25. Next, Samsung called Ulrich Pfeifer to explain that he developed the freeWAIS-sf software in the mid-1990s, and that WAIS was "a program to search documents and your local computer or by the web." *Id.* at 1863:4-16; *see also id.* at 1863:18-23, 1865:17-21 (stating that freeWAIS-sf was available online). Finally, Samsung relied on Dr. Martin Rinard for expert opinions that the WAIS reference disclosed various limitations of claim 25, including the use of a "heuristic ranking algorithm." *Id.* at 1915:21-1916:16.

Despite Samsung's presentation, the jury had multiple bases from which to conclude that Samsung failed to demonstrate with clear and convincing evidence that claim 25 was invalid. Dr. Rinard expressly relied on "the software distribution that contains the source code for WAIS." Tr. at 1914:6-9; *see also id.* at 2915:11-15. Through its expert Dr. Alex Snoeren, Apple introduced testimony that freeWAIS-sf did not contain "program instructions" as required by claim 25 because it contained only source code, not an executable program. Dr. Snoeren told the jury that "the way source code works is that's for humans to read and write. Computers don't actually execute source code. So in order to get program instructions, you have to compile that code. So the source code itself wouldn't actually even meet the preamble of the claim." *Id.* at 2824:7-21. Samsung states incorrectly that Dr. Snoeren contradicted himself by relying on source code for his infringement opinions. Dr. Snoeren analyzed source code in the accused products, *see id.* at 950:12-21, but also

[4] The Court previously denied Apple's motion for summary judgment of no invalidity of claim 25. *See* ECF No. 1151 at 27-29.

explained that the accused devices had flash memory containing "program instructions," *id.* at 949:12-18, and there was no dispute that the accused Samsung devices had compiled code. Moreover, the parties did not request claim construction of "program instructions." In *Versata Software, Inc. v. SAP America, Inc.*, the Federal Circuit addressed a similar situation, where the parties did not request construction of "computer instructions," and held that "[w]hether 'computer instructions' can include source code thus becomes a pure factual issue." 717 F.3d 1255, 1262 (Fed. Cir. 2013). While the *Versata* jury concluded that the disputed source code did constitute "computer instructions," the jury here was free to reach the opposite conclusion from the conflicting expert testimony.

Dr. Snoeren also opined that freeWAIS-sf did not teach the limitation of "plurality of heuristics to locate information in the plurality of locations." Regarding "plurality of heuristics," Dr. Snoeren critiqued Dr. Rinard's demonstration because it repeated the same heuristic on multiple computers, "so what we have here is two copies of the same heuristic," such that "[w]e don't have a plurality of heuristics." Tr. at 2823:7-2824:6. Regarding "plurality of locations," Dr. Snoeren also testified that the WAIS source code did not show searching on the Internet, only on "a local server and a server on another machine." *Id.* at 2825:7-19. On these points, the jury could reasonably have credited Apple's expert evidence over Samsung's.

Additionally, Apple called into question whether WAIS qualified as prior art. Samsung relied on the WAIS reference being known or used in the United States prior to the '959 patent's priority date. *See* 35 U.S.C. § 102(a) (2006). Dr. Rinard admitted that he did not know of any actual computers in the United States that ran freeWAIS-sf before the '959 patent's priority date of January 5, 2000. *See* Tr. at 1953:8-25. On cross-examination, Mr. Pfeifer (the developer of freeWAIS-sf) also equivocated as to whether freeWAIS-sf was available from servers in the United States, or only in four countries abroad, before the '959 patent's priority date. *See id.* at 1870:9-21 ("I would not want to rule out that I put one copy of, or fetched one copy from the United States."). Mr. Pfeifer was also unable to confirm the configuration of any freeWAIS-sf systems that allegedly

existed prior to January 5, 2000. *See id.* at 1871:3-1872:14. Accordingly, the jury could have reasonably determined that Samsung failed to show that WAIS qualified as prior art.

2. Obviousness

Second, Samsung contends that claim 25 would have been obvious as a matter of law, based on a combination of "Smith" (JX 55, U.S. Patent No. 7,653,614) and "Shoham" (JX 56, U.S. Patent No. 5,855,015). As noted above, obviousness is a question of law, but requires the court to "presume that the jury resolved the underlying factual disputes in favor of the verdict [] and leave those presumed findings undisturbed if they are supported by substantial evidence." *Kinetic*, 688 F.3d at 1356-57 (citation and quotation omitted). At trial, Dr. Rinard opined that Smith is "another example of universal search" employing heuristics, Tr. at 1930:2-10, that Shoham used "conventional heuristic search," *id.* at 1931:19-23, and that those skilled in the art would have been motivated to combine the two, *id.* at 1931:24-1932:5. Dr. Rinard also briefly touched on secondary considerations of non-obviousness, claiming that there was no commercial success or copying. *See id.* at 1932:16-1933:9.

However, Dr. Rinard's obviousness analysis was cursory, without substantive analysis of the disclosures of Smith or Shoham, or a limitation-by-limitation analysis of claim 25. *See generally id.* at 1929:9-1933:9. Dr. Snoeren provided greater testimony about the contents of Smith and Shoham, opining that there would have been no reason to combine Smith ("a patent for a fancy set top box or table box") with Shoham ("a very theoretical mathematical patent"), and that such a combination would not have disclosed all elements of claim 25. *Id.* at 2827:4-25. In light of this conflicting testimony, the jury was entitled to assess the experts' credibility on these issues. *See Kinetic*, 688 F.3d at 1362. Thus, the jury could have determined that Smith and Shoham failed to teach the elements of claim 25, and that there would have been no reason to combine those references. Based on those implied findings, the Court cannot conclude as a matter of law that claim 25 would have been obvious.

Samsung asserts that Dr. Snoeren's failure to give a "point-by-point response" to Dr. Rinard or address secondary considerations renders Dr. Snoeren's opinions "flawed as a matter

of law" such that they "cannot be considered in evaluating obviousness." Mot. at 32. These arguments distort the ultimate burden of proof on obviousness. *See Novo Nordisk A/S v. Caraco Pharm. Labs., Ltd.*, 719 F.3d 1346, 1353 (Fed. Cir. 2013) (noting that "the burden of persuasion remains with the challenger during litigation" for obviousness).

3. Indefiniteness

As noted above, the Supreme Court decided *Nautilus* on June 2, 2014 (after Samsung filed its current motion) and held that indefiniteness turns on whether claims define the invention "with reasonable certainty." 134 S. Ct. at 2124. Samsung now argues that the term "heuristic" in the '959 patent is indefinite as a matter of law under this new standard.

During summary judgment proceedings, the Court denied Samsung's motion for judgment that the term "heuristic" in the '959 patent was indefinite under the now-overruled "insolubly ambiguous" standard, but noted: "Samsung remains free to raise the issue of indefiniteness again should the term 'heuristic' become central to Apple's attempts to distinguish the '959 Patent from any prior art Samsung asserts at trial." ECF No. 1151 at 33 n.11. The parties now dispute whether Apple in fact tried to distinguish the prior art at trial on the basis of "heuristic." Samsung contends that Apple relied exclusively on this term to rebut invalidity, while Apple argues that it relied only on "*plurality* of heuristics," not the definition of "heuristic" itself. Without deciding this issue, and for purposes of this motion, the Court addresses Samsung's indefiniteness arguments under the intervening *Nautilus* decision. The Court determines that Samsung has not shown by clear and convincing evidence that "heuristic" is indefinite.

The Court previously addressed the meaning of "heuristic." In resolving Apple's motion for a preliminary injunction, the Court construed the similar term "heuristic algorithm" in U.S. Patent No. 8,086,604 (which is related to the '959 patent and shares a common specification), based on that patent's specification, prosecution history, and extrinsic evidence from the parties. *See* ECF No. 221 at 15-19. On appeal, when addressing the preliminary injunction in this case, the Federal Circuit reversed other aspects of this Court's claim construction, but did not disturb the construction of "heuristic algorithm." *See Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 695 F.3d 1370,

1378-80 (Fed. Cir. 2012). Although indefiniteness was not an issue in the appeal and the Federal Circuit's analysis preceded *Nautilus*, the Federal Circuit's analysis may be some indication that "heuristic" is not indefinite and has a reasonably certain meaning.

Later, at the summary judgment stage, the Court further addressed the meaning of "heuristic." Without objection from the parties, the Court construed "heuristic" in the '959 patent consistently with its prior construction of "heuristic algorithm," to mean: "some 'rule of thumb' that does not consist solely of constraint satisfaction parameters." ECF No. 1151 at 31. As noted above, the Court rejected Samsung's indefiniteness arguments in Samsung's summary judgment motion. The Court distinguished "heuristic" from other terms held to be indefinite—such as "fragile gel" in *Halliburton Energy Services, Inc. v. M-I LLC*, 514 F.3d 1244 (Fed. Cir. 2008)—because "neither the term 'heuristic' nor the Court's construction of it involves a word of degree, pure functional language, or other danger sign that typically triggers indefiniteness concerns." ECF No. 1151 at 32.

Furthermore, both Dr. Rinard and Dr. Snoeren applied the term "heuristic" under this Court's construction to the accused Samsung devices and the asserted prior art without difficulty. *See* Tr. at 1915:21-1916:16 (Rinard discussing how WAIS "implement[s] a rule of thumb"), 954:1-17 (Snoeren identifying accused "code that actually explains how the rule of thumb works"). Other than conclusory allegations that the term is "ill-defined," Samsung provides no clear and convincing evidence for holding that "heuristic" is indefinite. *See* Reply at 17-18; *cf. Bluestone Innovations LLC v. Nichia Corp.*, No. 12-CV-00059-SI, 2014 U.S. Dist. LEXIS 87182, at *36 (N.D. Cal. June 24, 2014) ("Defendants have failed to provide the Court with any evidence showing that someone skilled in the relevant art would be unable to ascertain the scope of claim 9 with reasonable certainty."). Accordingly, the Court DENIES Samsung's indefiniteness challenge to the '959 patent.

H. Invalidity of Claim 20 of the '414 Patent

The jury also determined that asserted claim 20 of Apple's '414 patent was not invalid. *See* ECF No. 1884 at 7. Claim 20 depends from claim 11 and recites:

11. A computer readable storage medium containing executable program instructions which when executed cause a data processing system to perform a method comprising:

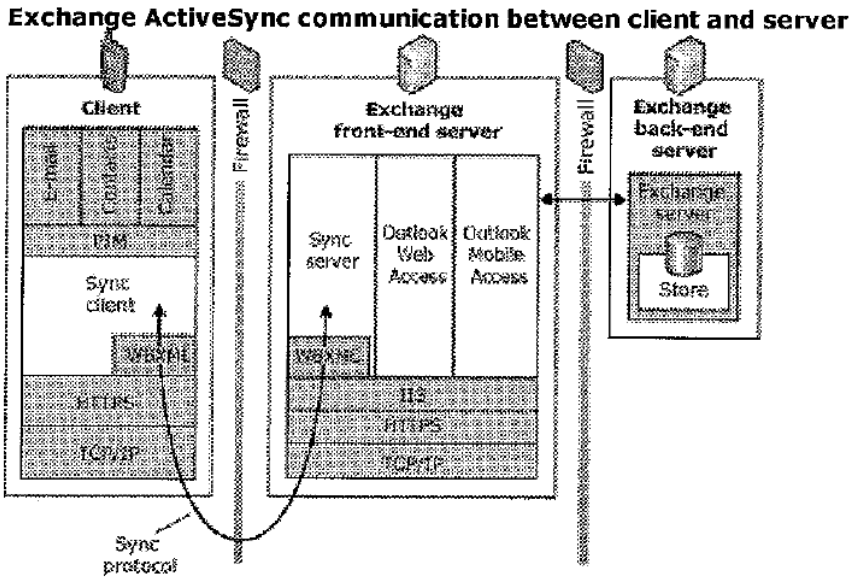
executing at least one user-level non-synchronization processing thread, wherein the at least one user-level non-synchronization processing thread is provided by a user application which provides a user interface to allow a user to access and edit structured data in a first store associated with a first database; and

executing at least one synchronization processing thread concurrently with the executing of the at least one user-level non-synchronization processing thread, wherein the at least one synchronization processing thread is provided by a synchronization software component which is configured to synchronize the structured data from the first database with the structured data from a second database.

20. The storage medium as in claim 11 wherein the synchronization software component is configured to synchronize structured data of a first data class and other synchronization software components are configured to synchronize structured data of other corresponding data classes.

'414 Patent cls. 11, 20. Samsung now seeks judgment as a matter of law that claim 20 is invalid for anticipation. The Court determines that substantial evidence supports the verdict, and DENIES Samsung's motion.

Samsung asserts that Windows Mobile 5.0, "a system from Microsoft that runs on wireless devices" (Tr. at 2184:16-21), disclosed all elements of claim 20. To explain how Windows Mobile 5.0 operated, Samsung's expert for the '414 patent, Dr. Jeffrey Chase, relied on the following diagram from an exhibit entitled "Exchange ActiveSync and Exchange 2003":



DX 317 at 2; *see also* SDX 3648; SDX 3653. Dr. Chase testified that Windows Mobile 5.0 had "components called Providers for e-mail, contacts, and calendar" that "provide the synchronization processes threads I spoke about." Tr. at 2193:9-20. The parties raise several disputes regarding the limitation of "wherein the *at least one* synchronization processing thread *is provided by* a synchronization software component."

1. "provided by"

First, Samsung argues that Apple distorted the plain meaning of "provided by" when it argued that a synchronization software component must "create" a thread. This argument is not persuasive. Samsung relies on testimony from one of the '414 patent's named inventors, Gordon Freeman, who said that a thread "would be provided by" a component if the component "would have executing code and that executing code must execute in a thread." Tr. at 2854:9-19. However, the Federal Circuit has held that "inventor testimony as to the inventor's subjective intent is irrelevant to the issue of claim construction." *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1347 (Fed. Cir. 2008). Samsung did not request claim construction of "provided by" and agrees that the jury was entitled to rely on the plain and ordinary meaning of the term. *See* Reply at 19.

The jury heard testimony from Dr. Snoeren that a software component does not "provide" a thread unless it creates one: "Q. Are you saying that providing a thread is the same thing as creating a thread, sir? Yes or no? A. Yes, sir. I've said that, and I'll say it again." Tr. at 2855:7-9. Moreover, Samsung made this argument when seeking summary judgment of invalidity, and the Court rejected it, concluding that "Samsung has not established that a reasonable jury would necessarily find that a synchronization software component that 'execute[s] on' or 'provid[es] the instructions' for a thread discloses the claim limitation that the component 'provide[]' the thread itself." ECF No. 1151 at 24-25. Thus, Samsung's post-trial attempt to dispute the meaning of "provided by" is misplaced. *See Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1320-21 (Fed. Cir. 2003) ("[I]t is too late at the JMOL stage to argue for or adopt a new and more detailed

interpretation of the claim language and test the jury verdict by that new and more detailed interpretation.").

Moreover, in opposing Apple's motion for judgment as a matter of law of infringement of the '414 patent, Samsung takes a contrary position about revisiting claim construction, in connection with the limitation of "configured to synchronize structured data." In opposing Apple's motion, Samsung argues that the jury was entitled to determine that "configured to synchronize" requires that the software component perform the synchronization directly, not "cause" another component to do so indirectly. *See* ECF No. 1906 at 6-7. Yet in Samsung's motion, Samsung contends that the jury was *not* entitled to determine that "provided by" requires direct causation. *See* Mot. at 37. Samsung's conflicting positions underscore the Federal Circuit's prohibition against arguing for a new claim construction at the post-trial stage. It is too late for Samsung to propose a new construction of "provided by."

2. "at least one synchronization processing thread"

Second, Samsung argues that even under Apple's view of "provided by," Windows Mobile 5.0 clearly disclosed at least one synchronization processing thread created by a synchronization software component. In addition to the "E-mail," "Contacts," and "Calendar" Providers shown in DX 317, Samsung claims that Windows Mobile 5.0 also included an "IMAP Mail" component. *Id.* at 36. Samsung asserts that this IMAP Mail component satisfies the requirements of claim 20 because this component was configured to synchronize structured data and created a synchronization processing thread. Under Samsung's theory, even if the E-mail, Contacts, and Calendar components did not create threads, the IMAP Mail component did so, and claim 20 requires only one such thread. *See id.*

Apple contests Samsung's theory about the IMAP Mail component. Apple claims that this is "an entirely new invalidity argument that was not presented to the jury." Opp'n at 35. Apple is incorrect. During trial, Dr. Chase testified that in addition to the three Provider components (E-mail, Contacts, and Calendar), "there's a fourth component here . . . there is in particular a component called IMAP Mail component that can synchronize data with IMAP Mail servers." Tr.

at 2193:21-2194:16, 2196:10-13; *see also* SDX 3650 (Samsung demonstrative identifying the "IMAP Mail Component"). Under questioning by Apple's counsel, Dr. Chase further testified that "The IMAP Mail component does create a thread, yes. It's a synchronization processing thread." *Id.* at 2254:10-13. Thus, Apple cannot credibly claim surprise at this argument.

Alternatively, Apple argues that a reasonable jury could have concluded that this evidence was not clear and convincing proof of anticipation. The Court agrees. While Dr. Chase referred to the IMAP Mail component, his analysis was cursory. Of his testimony that Samsung cites in its motion, only the portions above mention "IMAP." When asked to identify three synchronization software components (which claim 20 requires), Dr. Chase pointed only to "three different classes, E-mail, Contacts and Calendar," not the IMAP Mail component. *Id.* at 2195:9-14. Even if Dr. Chase had presented the IMAP Mail component in greater detail, "a jury may properly refuse to credit even uncontradicted testimony." *Guy v. City of San Diego*, 608 F.3d 582, 588 (9th Cir. 2010). Although Dr. Snoeren did not discuss the IMAP Mail component specifically, he opined to the jury that he found no software components in Windows Mobile 5.0 that provide a synchronization processing thread: "Q. So is there anywhere in Windows Mobile a software component that is specific to a data class, such as E-mail, Contacts, or Calendar, and also provides a thread to synchronize that data class? A. No, Ma'am, there's not." *Id.* at 2849:2-17. The excerpted diagram from DX 317 also lacks any reference to IMAP. While this is a close question, the Court must "view the evidence in the light most favorable to the nonmoving party . . . and draw all reasonable inferences in that party's favor," *Go Daddy*, 581 F.3d at 961, and Samsung bears the ultimate burden of proving invalidity by clear and convincing evidence.

Here, Apple presented sufficient evidence for a reasonable jury to conclude that Windows Mobile 5.0 did not disclose "at least one synchronization processing thread is provided by a synchronization software component" because the relevant software components "execute on pre-existing threads provided by *other* components, and do not provide a thread themselves." Opp'n at 33.[5] Under cross-examination, Dr. Chase admitted that none of the "E-mail," "Contacts," and

[5] The parties have previously stated that a "thread" is "a series of steps that a computer process needs to complete." ECF No. 1151 at 24 n.8.

"Calendar" Providers that he identified in DX 317 "creates" a synchronization thread. *See id.* at 2254:4-21. Moreover, Apple's expert Dr. Alex Snoeren disagreed with Dr. Chase's infringement opinion, based on independent review of the Windows Mobile 5.0 source code, and testified that no software components in Windows Mobile 5.0 "provide a thread." *Id.* at 2848:10-2849:17. Samsung did not call Dr. Chase to rebut Dr. Snoeren's validity opinions. Accordingly, the Court finds that a reasonable jury could have found non-infringement on this basis.

Apple offers another alternative basis for confirming the verdict: that claim 20 requires three synchronization software components, and that *all three* must "provide" a synchronization processing thread. This argument is meritless because it contradicts the plain language of claim 20. Independent claim 11 (from which claim 20 depends) recites "at least one synchroniziation processing thread" that is "provided by a synchronization software component." Apple posits that claim 11 "defines the characteristics of a synchronization software component." Opp'n at 36. This argument distorts the claim language. Claim 11 states that "a" component must provide "at least one" thread, but does not say that any and all components must provide threads. Claim 20 further requires at least two additional "software components," but does not say that those additional components must also provide threads. Therefore, this argument has no basis in the claim language.

For the foregoing reasons, the Court concludes that the jury's verdict of no invalidity was reasonable, and DENIES Samsung's motion.

I. SEC's Liability for Indirect Infringement

The Defendants in this case are three Samsung entities: the Samsung Korean parent company, Samsung Electronics Corporation ("SEC"), and two United States subsidiaries, Samsung Telecommunications America ("STA") and Samsung Electronics America ("SEA"). ECF No. 1714 at 1047 (undisputed fact read to the jury that STA and SEA are subsidiaries of SEC). The jury found SEC liable for direct infringement, inducing infringement, and contributory infringement with respect to certain Samsung products and Apple patents.[6] Samsung moves for judgment as a

[6] This includes the following Samsung products for the '647 patent: Admire, Galaxy Nexus, Galaxy Note, Galaxy Note II, Galaxy S II, Galaxy S II Epic 4G Touch, Galaxy S II Skyrocket,

matter of law that SEC is not liable for indirect infringement for these products and patents, either in the form of inducing infringement under 35 U.S.C. § 271(b) or contributory infringement under 35 U.S.C. § 271(c).[7] The Court DENIES Samsung's motion.[8]

Patent law provides that "whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). A claim for actively inducing infringement requires scienter and mens rea. *Global–Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068 (2011). Thus, to prevail on an inducement claim, a patentee must show "first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." *Kyocera Wireless Corp. v. Int'l Trade Comm'n*, 545 F.3d 1340, 1353–54 (Fed. Cir. 2008) (internal quotation marks and citation omitted); *accord DSU Med. Corp. v. JMS Co. Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc). "[M]ere knowledge of possible infringement by others does not amount to inducement; [rather,] specific intent and action to induce infringement must be proven." *DSU*, 471 F.3d at 1305 (citation omitted). Specific intent requires a "showing that the alleged infringer's actions induced infringing acts and that he knew or should have known his actions would induce actual infringements." *Id.* at 1304 (citation omitted). "While proof of intent is necessary, direct evidence is not required; rather, circumstantial evidence may suffice." *Water Techs. Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988). "The requisite intent to induce infringement may be inferred from all of the circumstances." *Id.* at 669. There is no requirement that direct evidence be introduced, nor is a jury's preference for circumstantial evidence over direct evidence unreasonable *per se*." *Liquid*

Galaxy S III, Stratosphere. ECF No. 1884 at 2, 6 (Amended Verdict Form). This also includes the following products for the '721 patent: Admire, Galaxy Nexus, Stratosphere. *Id.* at 5, 6.

[7] Apple accused SEC of inducing only STA, not SEA, to infringe the '647 and '721. ECF No. 1884 at 2, 5.

[8] Samsung also argues that there can be no finding of indirect infringement given that there is no liability for direct infringement by STA. Mot. at 38 (citing *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004), for the proposition that there can be a valid finding of inducement and contributory infringement only if there is a predicate offense of direct infringement). Because the Court rejects Samsung's motions for judgment as a matter of law of non-infringement of the '721 and the '647, the Court rejects Samsung's argument that there is no liability for direct infringement and thus only considers here Samsung's other argument that "even if there were direct infringement, there is no evidence to support the claims for indirect infringement." *Id.*

Dynamics Corp. v. Vaughan Co., 449 F.3d 1209, 1219 (Fed. Cir. 2006). Moreover, "[t]he drawing of inferences, particularly in respect of an intent-implicating question . . . is peculiarly within the province of the fact finder that observed the witnesses." *Rolls–Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101, 1110 (Fed. Cir. 1986). A patentee bears the burden of proving inducement by a preponderance of the evidence. *See Fujitsu Ltd. v. Belkin Int'l, Inc.*, No. 10-CV-03972-LHK, 2012 U.S. Dist. LEXIS 142102, at *120 (N.D. Cal. Sept. 28, 2012).

Here, there is sufficient evidence to support the jury's verdict that SEC induced STA to infringe. As a preliminary matter, the requirement that the alleged infringer "knew or should have known his actions would induce actual infringement necessarily includes the requirement that he or she knew of the patent." *DSU*, 471 F.3d at 1304; *Global–Tech Appliances*, 131 S. Ct. at 2068; *Mentor H/S, Inc. v. Med. Device Alliance, Inc.*, 244 F.3d 1365, 1379 (Fed. Cir. 2001). Apple presented evidence that SEC knew about the '647 patent and Apple's allegation of infringement since August 2010 when Apple made a presentation to Samsung that Samsung was infringing the '647, and knew about all Apple's other patents since February 8, 2012 when Apple filed its complaint. ECF No. 1714 at 1043 (undisputed facts read to the jury); PX 132 at 15 (August 2010 Presentation to Samsung); PX 3003 at 33 (deposition of Jun Won Lee, Director of Licensing for SEC) (describing how Apple told Samsung that Samsung was infringing Apple's patents). *See EON Corp. IP Holdings, LLC v. Sensus USA, Inc.*, No. C–12–1011 EMC, 2012 WL 4514138, at *1 (N.D. Cal. Oct. 1, 2012) (complaint suffices to establish knowledge element of induced infringement).

Further, other facts presented at trial provided sufficient circumstantial evidence for a reasonable jury to conclude that SEC intended to encourage STA's infringement. The jury learned STA sold more than 37 million accused units in the United States, and that STA bought these units from SEC, its parent company. ECF No. 1714 at 1208-09 (Vellturo) (SEC shipped devices to STA for sale in the United States); ECF No. 1715 at 1285-86 (Vellturo) (SEC manufactured, designed, and shipped accused units to the United States for resale to carriers and customers by STA); PX 3001 (Justin Denison, Chief Strategy Officer at STA) (noting SEC is parent of STA). The jury also

learned that some design teams at STA in the United States worked with and "under [the] direction" of SEC's research and development team in South Korea in order to help design, develop, test, and commercialize Samsung telecommunication devices which STA sold in the United States. *See* PX 3004 at 87-88 (Tim Sheppard, Vice President of Finance and Operations at STA); *see also* ECF No. 1716 at 1607 (testimony of Dale Sohn, CEO of STA, stating SEC made the final decision to include the operating platform in its phones). SEC also exercised a high degree of control over STA by directly setting the wholesale price at which STA was to sell phones to carriers in the United States. PX 3004 at 188. Drawing all reasonable inferences in Apple's favor, a reasonable jury could find that SEC induced STA's infringement, given that SEC controlled the design and manufacture of the smartphones which STA sold, and controlled the price at which STA sold the devices to carriers in the United States. *See Water Techs.*, 850 F.2d at 668-69 (upholding district court's finding of specific intent to induce based on defendant's knowledge of the patent and because defendant helped direct infringer make the infringing product and exercised control over manufacture of the product); *Ricoh Co., Ltd. v. Quanta Computer, Inc.*, 550 F.3d 1325, 1343 (Fed. Cir. 2008) (reversing district court's summary judgment finding of no inducement because defendant's role as the designer and manufacturer of the infringing products "may evidence an intent sufficiently specific to support a finding of inducement.").

Samsung's arguments to the contrary fail. Samsung argues there is no evidence that SEC had the specific intent required for inducement. Mot. at 38; Reply at 21. Samsung argues that even assuming SEC had knowledge of the '647 patent, Dr. Jeffay's testimony established SEC's belief that it did not infringe the '647 and that the '647 is not valid, and thus Samsung did not know that the acts it was inducing constituted infringement. *Id.* The Court is not persuaded because this issue is not one in which the evidence permits "only one reasonable conclusion," as required for this Court to grant Samsung judgment as a matter of law under Rule 50. *See Conceptus, Inc. v. Hologic, Inc.*, *Inc.*, No. C 09–02280 WHA, 2012 WL 44237, at *8-9 (N.D. Cal. Jan. 9, 2012) (finding sufficient evidence to support jury's finding of indirect infringement and rejecting argument that because there was evidence that defendant believed plaintiff's patent was invalid and not infringed,

there was insufficient evidence to show intent for indirect infringement); *Water Techs.*, 850 F.2d at 668-69 (finding defendant liable for inducement, despite an asserted "subjective belief that he had a non-infringing [product]"). Ultimately, because "[i]ntent is a factual determination particularly within the province of the trier of fact," this Court sees no reason to disturb the jury's finding that SEC had intent to induce infringement. *Fuji Photo Film Co. Ltd. v. Jazz Photo Corp.*, 394 F.3d 1368, 1378 (Fed. Cir. 2005) (declining to disturb jury's verdict because intent to induce infringement "is a factual determination.").

For the reasons above, sufficient evidence supports the jury's finding that SEC is liable for inducement. Accordingly, the Court need not reach the question of whether the jury's finding of contributory infringement for these same products and patents was also supported by substantial evidence because an additional finding on an alternative theory of indirect infringement will not change the outcome. *See Apple*, 920 F. Supp. 2d at 1111 (declining to reach whether jury's finding of induced infringement was supported by substantial evidence in light of Court's conclusion that jury's finding of direct infringement by SEC was supported by substantial evidence). Accordingly, the Court DENIES Samsung's motion for judgment as a matter of law that SEC is not liable for indirect infringement.

J. Double Recovery

Samsung claims the jury's verdict "creates impermissible double recovery" with respect to the Galaxy S II, Galaxy S II Epic 4G Touch, and Galaxy S II Skyrocket (the "Galaxy S II Products"). Mot. at 39. Samsung notes how in the first case between the parties, Case No. 11-CV-01846, there was a final judgment awarding damages for design patent infringement by the Galaxy S II Products, and that the award for these products represented Samsung's profits, pursuant to 35 U.S.C. § 289. *Id.* (citing ECF No. 2271 at 9-10, post-trial order recognizing that jury awarded Apple 40 % of Apple's calculation of Samsung's profits). Samsung notes how in this case, the jury awarded damages for infringement of utility patents by the Galaxy S II Products. ECF No. 1884 (Amended Verdict Form). Accordingly, Samsung claims the Court should deduct the full amount

of the Galaxy S II awards in this case as impermissible double recovery at this time. Mot. at 39. The Court DENIES Samsung's request.

As a preliminary matter, the Court notes that it denied Samsung's motion in limine before trial which effectively raised this same issue by asking the Court to exclude evidence of damages on sales for which Apple had already obtained an award of Samsung's profits in the first case. *See* ECF No. 1283-3 at 24-27 (motion); ECF No. 1398 at 3 (case management order). The Court allowed evidence of other forms of damages for the Galaxy S II Products in this second trial on the basis that if the judgment in the first case is vacated by the Federal Circuit, Apple would likely wish to seek recovery in the form of lost profits or reasonable royalty damages for those sales in this second case. ECF No. 1411 at 24 (pretrial conference transcript). Given this possibility, to prevent the necessity of holding a damages retrial in the instant case, the Court issued a verdict form in the instant case which separated out the damages for the Galaxy S II Products in the relevant time periods for which damages in both cases might overlap. *Id.*

The Court declines Samsung's request to deduct the full amount of the Galaxy S II awards in this case at this time. As this Court recognized at the hearing concerning Samsung's motion in limine, *see* ECF No. 1411 at 23-24, it is well settled law that a patentee that receives profits under 35 U.S.C. § 289 is not entitled to a further recovery for utility patent infringement from the same sale. *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277, 1291 (Fed. Cir. 2002); 35 U.S.C. § 289 (a patentee "shall not twice recover the profit made from the infringement."). It is thus clear, as Apple concedes, that Apple may only recover one form of damages for each infringing sale, regardless of how many patents the Galaxy S II Products infringe. ECF No. 1334-3 at 20 (Apple's opposition to Samsung's motion in limine). Accordingly, this Court has already assured Samsung that the Court will not allow Apple to attain a double recovery for each infringing sale of these products. *See* ECF No. 1411 at 24. The only remaining question is when this Court will take action by formally eliminating any duplicative damages: before entering final judgment in this case before this case is appealed, as Samsung requests, or *after* appeals of both cases are resolved. The Court already answered that question by holding at the pretrial conference that after the appeals of both

cases are resolved – and assuming "both survive appeal" – the Court will "consult with the parties [] to determine only one recovery for each sale." *Id.*

Samsung's arguments to the contrary are unavailing. Samsung claims that because the jury's verdict in the instant case "creates" and "includes" a double recovery, the Court must deduct the full amount of the Galaxy S II awards from the verdict now *before* entering final judgment in this case and before this case goes up on appeal. Mot. at 39-41. The Court is not persuaded. For one thing, the verdict in the instant case does not in and of itself "create" or "include" a double recovery; it is only when Apple *receives* two awards for each infringing sale that an impermissible double recovery occurs. The cases Samsung cites are not to the contrary. *See, e.g.*, *Catalina*, 295 F.3d at 1291 (recognizing that "once [the patentee] *receives* profits under § 289 for each sale, [the patentee] is not entitled to further recovery from the same sale[.]") (emphasis added). Samsung has not yet paid Apple anything for Samsung's sales of Galaxy S II Products.

Second, Samsung does not cite any case suggesting that in this context, where there are two different cases with two separate judgments, damages must be deducted before the second case is appealed. While it is clear that Apple may not actually *receive* two awards for the same infringing sale of a product, Samsung cites no case holding that a patentee cannot have, pending on appeal, two separate judgments—in two different cases—which grant the patentee two possible forms of damages for the same infringing sale. This is the situation that will occur here, as the parties have already appealed the judgment in the first case,[9] and the parties have suggested they will appeal the instant case. Samsung's citation to *Arlington Industries, Inc. v. Bridgeport Fittings, Inc.*, No. 3:01-CV-0485, 2010 WL 815466, at *4 (M.D. Penn. Mar. 3, 2010), *aff'd per curiam*, 477 Fed. Appx. 740 (Fed. Cir. 2012) (unpublished), is unavailing. Mot. at 41. There, where a jury had awarded both the full amount of the patentee's request for lost profits and a reasonable royalty for the same sales, the district court rejected the patentee's request to enter judgment as determined by the jury and delay deduction of double recovery from the judgment until after appeal. *Id.* The court reduced

[9] Samsung's opening brief to the Federal Circuit included an appeal of the infringer's profits award with respect to the Galaxy S II Products. Brief of the Petitioner-Appellant, *Apple, Inc. v. Samsung Elecs., Ltd.*, No. 14-1335 (Fed. Cir. May 23, 2014), Docket No. 33.

the total award before entering judgment. *Id.* The Federal Circuit summarily affirmed the opinion without reasoning. *See* 477 Fed. Appx. 740. Critically, however, *Arlington* involved a double damages award in *the same case*, and did not hold or suggest that when there are two cases with two separate judgments, damages must be deducted before the second case is appealed.[10] Given that there is no clear statement of law on this issue, the Court finds no reason to deviate from its previous decision to address the issue of double recovery after appeal of both cases are resolved. This decision is most efficient. Notably, if this Court strikes the damages awarded in the instant case as impermissible double recovery now, and then the judgment of design patent infringement in the *first* case gets vacated on appeal, this Court will have to reinstate the damages award in this case on remand after the appeal of this case to ensure Apple actually receives damages for each infringing sale, assuming the judgment of infringement in this case withstands appellate review.[11]

[10] The same goes for Samsung's other cited cases. *See, e.g.*, *Aero Prods. Int'l, Inc. v. Intex Recreation Corp.*, 466 F.3d 1000 (Fed. Cir. 2006) (reversing as impermissible double recovery district court's denial of defendant's post-trial motion and court's judgment entering a jury award of damages *in same case* for both patent and trademark infringement); *Catalina*, 295 F.3d at 1291-92 (reversing judgment in one case involving double award of infringer's profits and reasonable royalties).

[11] The Court denies Apple's request that this Court calculate a supplemental damages award and prejudgment interest in Case No. 11-CV-01846 at this time. Despite the fact that the Court previously ruled that it would wait until the appeals in the first case are resolved before calculating supplemental damages and prejudgment interest in that case, *see* ECF No. 2271 at 6, 8 (March 2013 post-trial order); ECF No. 2947 at 3 (damages retrial post-trial order declining Apple's request to reconsider Court's decision), Apple in its opposition to Samsung's motion for judgment as a matter of law in Case No. 12-CV-00630 renews its request for a supplemental damages award and pre-judgment interest in Case No. 11-CV-01846. Opp'n at 40-41. Apple's request is procedurally improper, as it is made in connection with briefing in the *second* case between the parties, not the *first* case. Second, the Court rejects Apple's request on the merits. Apple now claims that the Court deferred the award in part to obtain appellate guidance on how supplemental damages should be calculated, but that in light of the fact that Samsung has not challenged this Court's rulings on supplemental damages in its opening appellate brief, the Federal Circuit will not "be providing any further guidance on supplemental damages." Opp'n at 40. However, this Court previously explained that obtaining the Federal Circuit's guidance "*both as to the merits* as well as to how to calculate supplemental damages, before proceeding with an accounting, is the most efficient and acceptable way to proceed." ECF No. 2947 at 3 (emphasis added). The Court continues to conclude that it is more efficient to wait for the Federal Circuit's guidance on the merits issue of whether Samsung's products infringe Apple's patents before calculating supplemental damages and prejudgment interest in that case. *See* ECF No. 2947 at 3 (citing *Intron, Inc. v. Benghiat*, No. Civ.99–501 (JRT/FLN), 2003 WL 22037710, at *16 (D. Minn. Aug. 29, 2003)).

Accordingly, consistent with this Court's ruling at the pretrial conference, the Court will, if necessary, "consult with the parties [] to determine only one recovery for each sale" after the appeals of both cases are resolved. ECF No. 1411 at 24. The Court will allow for appropriate briefing on the double recovery issue at that time. The Court DENIES Samsung's motion to deduct any double recovery from the verdict at this time.

K. Infringement of Claim 15 of the '239 Patent

Samsung's '239 patent is directed to a "remote video transmission system." Against Apple, Samsung asserted claim 15, which recites:

> 15. An apparatus for transmission of data, comprising:
> a computer including a video capture module to capture and compress video in real time;
> means for transmission of said captured video over a cellular frequency.

'239 Patent cl. 15. The jury found that none of the three accused Apple products (iPhone 4, iPhone 4S, and iPhone 5) infringe. *See* ECF No. 1884 at 11. Samsung seeks judgment as a matter of law of infringement. The Court finds that substantial evidence supports the jury's verdict and DENIES Samsung's motion.

As an initial matter, Samsung claims that "[n]o reasonable jury" could find non-infringement because "substantial evidence was presented to conclude claim 15 was infringed." Mot. at 44. Samsung invokes the wrong legal standard: even if substantial evidence could support a contrary verdict, Samsung must show a *lack* of substantial evidence that favors the existing verdict, such that "only one reasonable conclusion" is possible. *Ostad*, 327 F.3d at 881. Here, substantial evidence supports the non-infringement determination.

Samsung focuses on three limitations in claim 15, arguing that Apple's expert, Dr. James Storer, made improper arguments for each limitation. First, Samsung argues that Dr. Storer incorrectly testified that the claimed "video capture module" is restricted to a "video card," must receive analog signals, and must be plugged into another component. However, Samsung mischaracterizes the trial testimony. In explaining his non-infringement opinion, Dr. Storer stated that he reviewed a bill of materials for an accused iPhone 5 (Tr. at 2738:24-2739:8), a live disassembly of an iPhone 5 (*id.* at 2741:8-25), and the testimony of Apple engineer Roberto Garcia

(*id.* at 2738:13-23) to determine that the accused devices do not capture video. Contrary to Samsung's position, Dr. Storer expressly acknowledged that "[c]laim 15 only requires a video capture module," not a video card, and opined that no such module exists in the accused phones. *Id.* at 2742:6-15. Dr. Storer did testify that no component of the accused phones receives "analog video," and "[t]here's not a cable being plugged in coming from a remote source." *Id.* at 2743:10-17. This was not improper argument of claim construction. Samsung did not request claim construction of "video capture module"—even though the Court provided last-minute construction of other terms in claim 15 at Samsung's request. Thus, the jury was entitled to evaluate the plain and ordinary meaning of the term based on the evidence at trial. *See* ECF No. 1301 at 5. Dr. Storer testified that he personally worked with video capture modules in the 1990s, and that the iPhones lacked such hardware. *See id.* at 2727:2-15. Furthermore, Samsung did not object to this testimony. *See Price v. Kramer*, 200 F.3d 1237, 1252 (9th Cir. 2000) (noting that failure to object to testimony waives argument on appeal).

Next, Samsung claims Apple offered improper arguments about "means for transmission of said captured video over a cellular frequency." The Court construed this term to mean: "one or more modems connected to one or more cellular telephones, and software performing a software sequence of initializing one or more communications ports on said apparatus, obtaining a cellular connection, obtaining said captured video, and transmitting said captured video." ECF No. 1532 at 14. Samsung claims that Dr. Storer gave improper opinions that a "port" required a specific kind of hardware, and that "connected to" requires a cable. Again, Samsung mischaracterizes the testimony. Dr. Storer told the jury that the "electrical connections between chips" that Samsung's expert identified in the accused iPhones were not "ports" as understood at the '239 patent's priority date. Tr. at 2751:14-2752:9. While Dr. Storer referred to a lack of "cables" connecting the iPhones to any modems (*id.* at 2745:6-14), he also opined that the phones' baseband processor—which Samsung's expert identified as the claimed "modem"—could not be "connected to one or more cellular telephones" because the baseband processor was itself part of the phone (*id.* at 2745:15-

2746:18). Thus, Apple presented reasoned expert opinions based on the Court's claim construction that the jury could have credited.

Finally, Samsung contends that Apple improperly tried to limit "video" to "something other than streaming video and video frames." Mot. at 45. At trial, Samsung argued that Apple's FaceTime application transmits video. In response, Dr. Storer testified that "[t]here is no video at all on FaceTime" because "an individual frame is created and then it's immediately transmitted," and disagreed with Samsung's expert because "[a] single frame is not video." Tr. at 2754:1-25; *see also id.* at 2713:10-2714:3 (Garcia testimony regarding absence of video in FaceTime). Samsung did not object to this testimony and now identifies no reason why these opinions contradict the plain and ordinary meaning of "video." Dr. Storer agreed on cross-examination that his expert report used the phrase, "the FaceTime application prepares to transmit video" (*id.* at 2781:10-17), but this does not amount to an admission that FaceTime employs "video" as claimed, particularly because Mr. Garcia distinguished between "video" and "a video frame" (*id.* at 2713:20-23).

Additionally, Samsung argues that Dr. Storer compared the accused products to commercial embodiments of the '239 patent, instead of the claim language. Samsung's argument is misplaced. As detailed above, Apple presented specific evidence about its accused products and why they do not infringe. Samsung points to *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, where the Federal Circuit reversed summary judgment of non-infringement because the district court relied solely on commercial embodiments, and thus "eschewed the cardinal principle that the accused device must be compared to the claims rather than to a preferred or commercial embodiment." 314 F.3d 1313, 1347 (Fed. Cir. 2003). However, that is not the situation here. The jury heard substantial evidence in addition to Dr. Storer's discussion of the inventors' actual products, and also received instructions to "not compare the Samsung and Apple commercial products to each other." ECF No. 1847 at 32; *see Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1470 (Fed. Cir. 1997) (denying new trial where patentee made only a "a few passing references" to commercial products and "the jury instructions properly cautioned the jury not to compare commercial embodiments to determine infringement").

The jury needed to conclude that only one of the limitations of claim 27 above was not present in the accused iPhones to reach a verdict of non-infringement. The jury received substantial evidence to conclude that any of several limitations were not infringed. Accordingly, Samsung's motion regarding infringement of the '239 patent is DENIED.

III. CONCLUSION

For the reasons discussed above, the Court:

(1) DENIES Samsung's motion for judgment as a matter of law of non-infringement of claim 9 of the '647 patent.

(2) DENIES Samsung's motion for judgment as a matter of law of invalidity of claim 9 of the '647 patent.

(3) DENIES Samsung's motion for judgment as a matter of law of invalidity of claim 8 of the '721 patent.

(4) DENIES Samsung's motion for judgment as a matter of law of non-infringement of the '721 patent.

(5) GRANTS Samsung's motion for judgment as a matter of law that Samsung did not willfully infringe the '721 patent.

(6) DENIES Samsung's motion for judgment as a matter of law of invalidity of the '172 patent.

(7) DENIES Samsung's motion for judgment as a matter of law of invalidity of claim 25 of the '959 patent.

(8) DENIES Samsung's motion for judgment as a matter of law of invalidity of claim 20 of the '414 patent.

(9) DENIES Samsung's motion for judgment as a matter of law that SEC is not liable for indirect infringement.

(10) DENIES Samsung's request that the Court deduct the full amount of the Galaxy S II awards as impermissible double recovery.

(11) DENIES Samsung's motion for judgment as a matter of law of infringement of claim 15 of the '239 patent.

IT IS SO ORDERED.

Dated: September 9, 2014

LUCY H. KOH
United States District Judge