


ROBINSON, District Judge

I. INTRODUCTION

Plaintiff MobileMedia Ideas, LLC (“MobileMedia”) brought this patent infringement action against Apple Inc. (“Apple”), alleging in its amended complaint that various Apple products infringe sixteen patents.¹ In a memorandum opinion and order dated November 8, 2012, the court issued its claim construction and resolved several summary judgment motions. (D.I. 461; D.I. 462) A seven-day jury trial was held on December 3-11, 2012. Trial was limited to claims 5, 6, and 10 of the ‘075 patent, claims 23 and 24 of the ‘068 patent, and claim 73 of the ‘078 patent. Except for finding no induced infringement, the jury returned a verdict in MobileMedia’s favor, finding direct infringement and validity of the ‘075, ‘068, and ‘078 patents. (D.I. 507) Before the court is Apple’s renewed Rule 50 motion for judgment as a matter of law (“JMOL”) that the asserted claims of the ‘075, ‘068, and ‘078 patents are invalid and not infringed or, in the alternative, for a new trial under Rule 59. (D.I. 517) The court has jurisdiction over these matters pursuant to 28 U.S.C. § 1338.

II. BACKGROUND

A. Procedural History

MobileMedia filed this patent infringement action on March 31, 2010 against Apple and subsequently amended its complaint to assert sixteen patents in total. (D.I.

¹U.S. Patent Nos. 6,253,075 (“the ‘075 patent”), 6,070,068 (“the ‘068 patent”), 6,427,078 (“the ‘078 patent”), RE 39,231 (“the ‘231 patent”), 5,737,394 (“the ‘394 patent”), 6,441,828 (“the ‘828 patent”), 6,549,942 (“the ‘942 patent”), 6,393,430 (“the ‘430 patent”), 6,002,390 (“the ‘390 patent”), 6,446,080 (“the ‘080 patent”), 6,760,477 (“the ‘477 patent”), 7,313,647 (“the ‘647 patent”), 7,349,012 (“the ‘012 patent”), 5,915,239 (“the ‘239 patent”), 6,725,155 (“the ‘155 patent”), and 5,490,170 (“the ‘170 patent”). (D.I. 8)

1; D.I. 8) Apple answered and asserted affirmative defenses of, *inter alia*, non-infringement, invalidity, unenforceability, failure to state a claim, “waiver, laches and/or estoppel,” prosecution history estoppel, and lack of standing. (D.I. 10 at ¶¶ 114-23) Apple also asserted counterclaims for declaratory judgment of non-infringement. (*Id.* at ¶¶ 124-208)

On April 4, 2012, the parties stipulated to dismiss the claims and counterclaims related to the ‘390 patent and the ‘647 patent. (D.I. 263) On April 25, 2012, MobileMedia deferred four more patents (the ‘080, ‘477, ‘012, and ‘239 patents) for a later phase, leaving ten patents at issue for summary judgment. On summary judgment, the court found no direct infringement and no induced infringement of claims 1, 7, and 8 of the ‘068 patent, as well as of all asserted claims of the ‘231 and ‘394 patents. (D.I. 461; D.I. 462) In addition, the court found invalidity of all asserted claims of the ‘828 and ‘942 patents, no invalidity of the asserted claims of the ‘068 patent based on the asserted prior art Orbitor Video, and no anticipation of the asserted claims of the ‘075, ‘394, and ‘155 patents based on the asserted prior art.² (D.I. 461; D.I. 462) On November 15, 2012, the court excluded from trial claim 1, as amended during reexamination, as well as claims 2 and 3, of the ‘078 patent. (D.I. 469) MobileMedia then chose claims of three remaining patents to assert at trial (the “asserted claims”): claims 5, 6, and 10 of the ‘075 patent, claims 23 and 24 of the ‘068 patent, and claim 73 of the ‘078 patent. (D.I. 474; D.I. 497 at 18:11-21:10) The products accused of

²The court also resolved several motions to strike and granted MobileMedia’s motion for partial summary judgment on several of Apple’s defenses. (D.I. 461; D.I. 462)

infringing the asserted claims were Apple's iPhone 3G, iPhone 3GS, and iPhone 4 products (collectively, the "iPhone").

Following a seven-day trial, the jury returned a verdict on December 13, 2012 of direct infringement of all asserted claims of the '075, '068, and '078 patents; validity of all asserted claims of the '075, '068, and '078 patents; and no induced infringement of any asserted claims of the '075, '068, and '078 patents. (D.I. 506) The court entered judgment accordingly on December 17, 2012. (D.I. 513) On January 14, 2013, Apple renewed its motion for JMOL pursuant to Federal Rule of Civil Procedure 50(b) and also moved for a new trial. (D.I. 517)

B. Technology

The '075, '068, and '078 patents relate to a variety of technologies in information processing, computing, and mobile phones. The '075 and '068 patents relate to technology for rejecting, silencing, and merging second incoming calls on mobile telephones already connected to a first call, and the '078 patent relates to cameras on mobile devices. The court discusses each patent in more detail *infra*.

III. STANDARD

A. Renewed Motion for Judgment as a Matter of Law

To prevail on a renewed motion for judgment as a matter of law following a jury trial, the moving party "must show that the jury's findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusions implied [by] the jury's verdict cannot in law be supported by those findings." *Pannu v. lolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (quoting *Perkin-Elmer Corp. v.*

Computervision Corp., 732 F.2d 888, 893 (Fed. Cir. 1984)). “Substantial’ evidence is such relevant evidence from the record taken as a whole as might be acceptable by a reasonable mind as adequate to support the finding under review.” *Perkin-Elmer Corp.*, 732 F.2d at 893. In assessing the sufficiency of the evidence, the court must give the non-moving party, “as [the] verdict winner, the benefit of all logical inferences that could be drawn from the evidence presented, resolve all conflicts in the evidence in his favor, and in general, view the record in the light most favorable to him.” *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1348 (3d Cir. 1991); *Perkin-Elmer Corp.*, 732 F.2d at 893. The court may not determine the credibility of the witnesses nor “substitute its choice for that of the jury between conflicting elements of the evidence.” *Perkin-Elmer Corp.*, 732 F.2d at 893. In sum, the court must determine whether the evidence reasonably supports the jury’s verdict. See *Dawn Equip. Co. v. Kentucky Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998).

B. Motion for a New Trial

Federal Rule of Civil Procedure 59(a) provides, in pertinent part:

A new trial may be granted to all or any of the parties and on all or part of the issues in an action in which there has been a trial by jury, for any of the reasons for which new trials have heretofore been granted in actions at law in the courts of the United States.

Fed. R. Civ. P. 59(a). The decision to grant or deny a new trial is within the sound discretion of the trial court and, unlike the standard for determining judgment as a matter of law, the court need not view the evidence in the light most favorable to the verdict winner. See *Allied Chem. Corp. v. Darflon, Inc.*, 449 U.S. 33, 36 (1980); *Olefins Trading, Inc. v. Han Yang Chem. Corp.*, 9 F.3d 282 (1993); *LifeScan Inc. v. Home*

Diagnostics, Inc., 103 F. Supp. 2d 345, 350 (D. Del. 2000) (citations omitted); see also 9A Wright & Miller, Federal Practice and Procedure § 2531 (2d ed. 1994) (“On a motion for new trial the court may consider the credibility of witnesses and the weight of the evidence.”). Among the most common reasons for granting a new trial are: (1) the jury’s verdict is against the clear weight of the evidence, and a new trial must be granted to prevent a miscarriage of justice; (2) newly-discovered evidence exists that would likely alter the outcome of the trial; (3) improper conduct by an attorney or the court unfairly influenced the verdict; or (4) the jury’s verdict was facially inconsistent. See *Zarow-Smith v. N.J. Transit Rail Operations*, 953 F. Supp. 581, 584-85 (D.N.J. 1997) (citations omitted). The court must proceed cautiously, mindful that it should not simply substitute its own judgment of the facts and the credibility of the witnesses for those of the jury. Rather, the court should grant a new trial on the basis that the verdict was against the weight of the evidence only where a miscarriage of justice would result if the verdict were to stand. See *Williamson*, 926 F.2d at 1352; *EEOC v. Del. Dep’t of Health & Soc. Servs.*, 865 F.2d 1408, 1413 (3d Cir. 1989).

IV. DISCUSSION

A. Apple’s Renewed JMOL Motion

Apple advances several arguments in support of its renewed motion for JMOL. Regarding invalidity, Apple asserts that it “presented clear and convincing evidence identifying every limitation of the asserted claims in the prior art and establishing why one of ordinary skill would have combined these invalidity references.” (D.I. 518 at 1) It asserts that MobileMedia presented no evidence of secondary indicia of

nonobviousness and relied on conclusory expert testimony that conflicted with legal standards and the evidence. (*Id.*) Regarding non-infringement, Apple avers that MobileMedia presented no evidence that Apple directly infringes the '075 or '068 patent, and that MobileMedia's only infringement theory for the '078 patent was neither disclosed in discovery nor supported by the evidence. (*Id.*)

1. Standards

a. Infringement

A patent is infringed when a person “without authority makes, uses or sells any patented invention, within the United States . . . during the term of the patent.” 35 U.S.C. § 271(a). To prove direct infringement, the patentee must establish, by a preponderance of the evidence, that one or more claims of the patent read on the accused device literally or under the doctrine of equivalents. See *Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 261 F.3d 1329, 1336 (Fed. Cir. 2001). A two-step analysis is employed in making an infringement determination. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must construe the asserted claims to ascertain their meaning and scope. See *id.* Construction of the claims is a question of law subject to de novo review. See *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998). The trier of fact must then compare the properly construed claims with the accused infringing product. See *Markman*, 52 F.3d at 976. This second step is a question of fact. See *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

“Direct infringement requires a party to perform each and every step or element

of a claimed method or product.” *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1320 (Fed. Cir. 2009) (internal quotation marks omitted). “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). If an accused product does not infringe an independent claim, it also does not infringe any claim depending thereon. See *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989). However, “[o]ne may infringe an independent claim and not infringe a claim dependent on that claim.” *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1359 (Fed. Cir. 2007) (quoting *Wahpeton Canvas*, 870 F.2d at 1552) (internal quotation marks omitted). The patent owner has the burden of proving infringement and must meet its burden by a preponderance of the evidence. See *SmithKline Diagnostics, Inc. v. Helena Lab. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988) (citations omitted).

b. Invalidity

(1) Anticipation

Under 35 U.S.C. § 102(e),

a person shall be entitled to a patent unless an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent . . . or a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent.

A claim is anticipated only if each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir.

1987). A single prior art reference may expressly anticipate a claim where the reference explicitly discloses each and every claim limitation. However, the prior art need not be *ipsissimis verbis* (i.e., use identical words as those recited in the claims) to be expressly anticipating. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984). A single prior art reference also may anticipate a claim where one of ordinary skill in the art would have understood each and every claim limitation to have been disclosed inherently in the reference. *Cont'l Can Co. USA Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). The Federal Circuit has explained that an inherent limitation is one that is necessarily present and not one that may be established by probabilities or possibilities. *Id.* That is, “the mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Id.* The Federal Circuit also has observed that “inherency operates to anticipate entire inventions as well as single limitations within an invention.” *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1380 (Fed. Cir. 2003). Moreover, recognition of an inherent limitation by a person of ordinary skill in the art before the critical date is not required to establish inherent anticipation. *Id.* at 1377.

Even if the prior art discloses each and every limitation set forth in a claim, such disclosure will not suffice under 25 U.S.C. § 102 if it is not enabling. *In re Borst*, 345 F.2d 851, 855 (C.C.P.A. 1965). “Long ago our predecessor court recognized that a non-enabled disclosure cannot be anticipatory (because it is not truly prior art) if that disclosure fails to ‘enable one of skill in the art to reduce

the disclosed invention to practice.” *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354 (Fed. Cir. 2003) (citations omitted). The patentee bears the burden to show that the prior art reference is not enabled and, therefore, disqualified as relevant prior art for an anticipation inquiry. *Id.* at 1355.

An anticipation inquiry involves two steps. First, the court must construe the claims of the patent in suit as a matter of law. *Key Pharm. v. Hercon Lab. Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998). Second, the finder of fact must compare the construed claims against the prior art to determine whether the prior art discloses the claimed invention. *Id.* The burden of proof rests on the party asserting invalidity and can be met only by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P’ship*, – U.S. –, 131 S. Ct. 2238, 2242, 180 L. Ed. 2d 131 (2011) (“We consider whether [35 U.S.C.] § 282 requires an invalidity defense to be proved by clear and convincing evidence. We hold that it does.”).

(2) Obviousness

“A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a). Obviousness is a question of law, which depends on underlying factual inquiries.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc.,

might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Likewise, a defendant asserting obviousness in view of a combination of references has the burden to show that a person of ordinary skill in the relevant field had a reason to combine the elements in the manner claimed. *Id.* at 418-19. The Supreme Court has emphasized the need for courts to value “common sense” over “rigid preventative rules” in determining whether a motivation to combine existed. *Id.* at 419-20. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. In addition to showing that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, a defendant must also demonstrate that “such a person would have had a reasonable expectation of success in doing so.”

PharmaStem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1360 (Fed. Cir. 2007).

A combination of prior art elements may have been “obvious to try” where there existed “a design need or market pressure to solve a problem and there [were] a finite number of identified, predictable solutions” to it, and the pursuit of the “known options within [a person of ordinary skill in the art’s] technical grasp” leads to the anticipated success. *KSR*, 550 U.S. at 421. In this circumstance, “the fact that a combination was

obvious to try might show that it was obvious under § 103.” *Id.*

A fact finder is required to consider evidence of secondary considerations, or objective indicia of nonobviousness, before reaching an obviousness determination, as a “check against hindsight bias.” See *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). “Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *John Deere Co.*, 383 U.S. at 17-18.

“Because patents are presumed to be valid, an alleged infringer seeking to invalidate a patent on obviousness grounds must establish its obviousness by facts supported by clear and convincing evidence.” *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006) (citation omitted). In conjunction with this burden, the Federal Circuit has explained that,

[w]hen no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1304 (Fed. Cir. 2008) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)).

2. The '075 Patent

The '075 patent, titled “Method and Apparatus for Incoming Call Rejection,” relates to call processing techniques for rejecting incoming calls in cellular

telecommunications systems. ('075 patent, col. 1:15-16) Conventionally, "wireless telecommunications systems are made up of a series of base stations connected to landline telecommunications networks" (*Id.*, col. 1:31-33) These base stations communicate by base station controllers and can establish radio frequency ("RF") communications channels with remote mobile phones (or "mobiles"). (*Id.*, col. 1:34-37) When a person attempts to call a mobile phone user who is in the geographic coverage area of the wireless system, "the base station acts as an intermediary by [sending a call alert to] the mobile via at least one RF channel." (*Id.*, col. 2:1-3) Thereafter, the base station waits for a fixed time period, or a ringing cycle, to receive a response from the mobile phone. (*Id.*, col. 2:3-6) If the mobile phone user answers the call, the mobile phone sends a response to the base station, which sets up a connection over an existing or new RF channel. (*Id.*, col. 2:13-18) If the user does not answer the call, "the base station releases the call by terminating the call alert to the mobile and signaling to the caller that the mobile is unavailable." (*Id.*, col. 2:7-10) According to the '075 patent, prior art wireless telecommunications systems did not provide users the option to reject calls immediately on demand, so a user had to either power off the mobile phone or allow it to ring through the entire ringing cycle. (*Id.*, col. 2:36-53)

To address this need, the '075 patent teaches a method and apparatus that allow a user of a mobile communications device to automatically or manually reject calls. (*Id.*, col. 3:32-47) The reexamined patent only relates to the rejection of incoming calls while the device is "in communication with a first calling station," or already connected to a first call. (See *id.*, claims 10, 15) Specifically, the claimed

invention is directed to a mobile phone rejecting a second incoming call by sending a “rejection message” to the wireless system with “at least one information element indicating to the wireless system that the wireless system is to immediately release the incoming call.” (*Id.*, col. 12:31-33)

The '075 patent was issued on June 26, 2001 and claims priority to a provisional application filed May 19, 1998. An ex parte reexamination certificate cancelling claims 1-4, amending claims 10, 13, and 14, and confirming claims 5-9, 11-12, and 14 was issued on March 20, 2012. Claims 5, 6, and 10 were asserted at trial. Claim 5 and reexamined claim 10 are reproduced below:

5. A method of rejecting an incoming call to a mobile phone, said mobile phone having a transceiver circuit for transmitting and receiving transmissions to and from a remote transceiver, said mobile phone in communication with a first calling station via the remote transceiver on a communication channel in a wireless system, said method comprising the steps of:

receiving at the mobile phone, a transmission from the remote transceiver signifying that there is an incoming call;

determining at the mobile phone if said incoming call is to be rejected; and

transmitting from the mobile phone a **rejection message** to the remote transceiver in response to a determination being made, during said step of determining, that said incoming call is to be rejected, said rejection message comprising at least one information element indicating to the wireless system that **the wireless system is to immediately release the incoming call on the communication channel between the mobile phone and remote transceiver.**

. . . .

10. In a mobile communications device, apparatus in communication with a first calling station for selectably rejecting an incoming call, said apparatus comprising:

a transceiver operable to send and receive transmissions to and from a remote transceiver in a wireless system on a communication channel, said transceiver for receiving a transmission signifying that an incoming call is being attempted; and

a control processor coupled to said transceiver, said control processor for determining if said incoming call is to be rejected and, in response to a positive determination, said control processor for outputting a **rejection message** to said transceiver for transmission to said remote transceiver, wherein said rejection message comprises at least one information element indicating to the wireless system that **the wireless system is to immediately release the incoming call on the communication channel between the mobile communications device and remote transceiver.**

(Emphasis added) Dependent claim 6 teaches the method of claim 5, “wherein the mobile phone includes an actuator operable by a user for inputting a manual input to the mobile phone.”

a. Invalidity of the ‘075 patent

(1) Apple’s evidence

At trial, Apple asserted that the claims of the ‘075 patent are obvious based on combinations of (1) Global System for Mobile Communications standard (“GSM”) 04.83³ and GSM 04.08⁴ (collectively, “GSM 04.83/04.08”), and (2) the ‘068 patent with GSM 04.83/04.08. Apple presented evidence that these references are prior art and that, together, they disclose all limitations of the asserted claims of the ‘075 patent. (See D.I. 534 at 1099:6-1100:8) Specifically, GSM 04.08 discloses the messages exchanged

³GSM 04.83 refers to European Telecommunication Standard - ETS 300 567: European Digital Cellular Telecommunications System (Phase 2), Call Waiting (CW) and Call Hold (HOLD) Supplementary Services - Stages 3. (DTX 41)

⁴GSM 04.08 refers to European Telecommunication Standard - ETS 300 557: European Digital Cellular Telecommunications System (Phase 2), Mobile Radio Interface Layer 3 Specification. (DTX 40)

between a mobile phone and a base station to establish and release a single call.

(DTX 40 § 5.2.2.1; D.I. 534 at 1102:14-16, 1108:3-5, 1108:18-20, 1152:8-20) GSM 04.83 discloses call handling for second incoming calls (or “call waiting” calls). (DTX 41 §§ 1.1, 1.3.1; D.I. 534 at 1102:13-14, 1104:15-19, 1108:1-2)

Apple’s expert, Dr. Robert Akl (“Dr. Akl”), testified at trial that it would have been obvious for a person of ordinary skill to combine GSM 04.83 and GSM 04.08 to reject a second incoming call for several reasons. (D.I. 534 at 1107:9-1109:6) GSM 04.83/04.08 are parts of Phase 2 of the GSM standard, published by one standards body, the European Telecommunications Standards Institute (“ETSI”) in 1995. (*Id.* at 1108:6-10; DTX 40; DTX 41) He also pointed to GSM 04.83’s express instruction to an engineer to use GSM 04.08 and averred that one of ordinary skill could easily locate the relevant portions of GSM 04.08 by using, for instance, the table of contents and recognizing that the relevant sections of GSM 04.83 and GSM 04.08 share “very similar” titles – “[w]aiting call indication and confirmation” (GSM 04.83 § 1.1) vs. “[c]all indication” and “[c]all confirmation” (GSM 04.08 §§ 5.2.2.1, 5.2.2.3). (D.I. 534 at 1107:15-1109:6; *see also id.* at 1152:8-20) Another Apple witness, engineer Matthew Klahn (“Klahn”), also testified that it would be “trivial” for an engineer to find the relevant portions of GSM 04.08 by referring to the index, which lists sections by functionality. (D.I. 533 at 863:15-25) Apple further pointed out that the inventors explicitly recognized, in their provisional application for the ‘075 patent, that “GSM has a feature like this.” (JTX 11 at 2; D.I. 534 at 1100:4-1102:3)

In addition, Apple argues that the opinion of MobileMedia’s expert, Dr. Sigurd

Meldal (“Dr. Meldal”), that a person of ordinary skill would not be motivated to combine GSM 04.83 and GSM 04.08 contradicts MobileMedia’s infringement theory, which depends on the combination of two later GSM documents: GSM 24.083 and GSM 24.008 (collectively, “GSM 24.083/24.008”). (D.I. 532 at 587:25-599:3; D.I. 535 at 1437:9-1438:18) Dr. Akl testified that GSM 24.083/24.008 are “very similar” to GSM 04.83/04.08 and that the relevant GSM functionality (regarding the “disconnect,” “release,” and “release request” messages) has not changed in the 20 years since the GSM 4.83 and GSM 4.08 standards were published. (D.I. 534 at 1097:23-1099:3)

Furthermore, in response to MobileMedia’s suggestion that going from a first call rejection to a second call rejection required an inventive leap, Apple submitted the ‘068 patent as another prior art reference to supply this inventive leap. The ‘068 patent teaches a user interface that provides an option to reject a second incoming call and states that rejection of the second incoming call may be performed using standards in the GSM system. (‘068 patent, Figs. 6A, 6B, 6D, 7, col. 1:8-13, 1:17-28; D.I. 534 at 1114:14-1123:18, 1156:4-22)

(2) MobileMedia’s evidence

MobileMedia did not dispute that GSM 04.83 and GSM 04.08, together with or without the ‘068 patent, disclose every limitation of the asserted claims. (See D.I. 534 at 1102:9-12; D.I. 535 at 1394:10-21, 1403:22-1404:10; see *also* D.I. 520 at 14-15) MobileMedia also did not offer any evidence of secondary considerations of nonobviousness, and the jury was not instructed on such considerations. (See D.I. 505) Instead, MobileMedia focused on showing that one of ordinary skill could not

“put[] rejection from [GSM] 04.08 onto call waiting [from GSM 04.83].” (D.I. 536 at 1564:15-17) In post-trial briefing, it argues that the court’s denial of summary judgment of obviousness based on this combination supports the verdict of validity because whether GSM 04.08 teaches away from combinations with references that teach call handling of second incoming calls, such as GSM 4.83 or the ‘068 patent, was an issue of material fact for the jury.⁵ (D.I. 520 at 14)

MobileMedia’s expert, Dr. Meldal, opined at trial that his engineering students⁶ would have been “discouraged” from using GSM 04.08 to handle a second call because it only related to handling a single call. (D.I. 535 at 1395:15-1396:16) Dr. Meldal also testified that GSM 04.08 disclosed sending Cause No. 21, or a “busy” signal, in response to a second incoming call and, thus, taught away from the invention claimed in the ‘075 patent. (*Id.* at 1397:19-1398:23) With respect to combining GSM 04.08 with GSM 04.83, he opined:

I had given my opinion about why a person of ordinary skill in the art would actually be looking away from [GSM 04.08] because it was about busy calls whereas [GSM 04.83] is about call waiting and call hold.

[S]o we have on the one hand one document talking about call waiting. We have another document talking about handling the first call.

⁵On summary judgment, the court found that there remained a dispute of material fact because Dr. Meldal had opined that the GSM 04.83 reference to GSM 04.08 was too general and that GSM 04.08 actually taught away from a combination with prior art. (D.I. 461 at 39)

⁶The parties agreed that a person of ordinary skill in the art would be “a trained engineer with a Bachelor’s degree, two years of professional experience or graduate work.” (D.I. 535 at 1441:7-10) For purposes of JMOL, the court will resolve the inference in MobileMedia’s favor that Dr. Meldal’s reference to his graduate students met the definition of a person of ordinary skill, i.e., that they had two years of graduate work.

One of them is small, one of them is big. And even having them side by side, it doesn't tell you anything about call waiting while on the second call.

(D.I. 535 at 1403:22-1404:16)

In addition, MobileMedia avers that, "the jury was presented with substantial evidence of no invalidity through the reexamination of the '075 patent" at the U.S. Patent and Trademark Office ("PTO"). (D.I. 520 at 14-15) Although GSM 04.83 was not before the PTO during reexamination, it is undisputed that the examiner knew about call waiting. (See D.I. 534 at 1143:1-14) MobileMedia argues that, in view of GSM 04.08 and the examiner's knowledge of call waiting, the jury was free to reject Apple's argument that the claimed invention was obvious. (D.I. 520 at 15)

(3) Analysis

Although it is a question of fact, "the question of motivation to combine may nonetheless be addressed on . . . JMOL in appropriate circumstances." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1239 (Fed. Cir. 2010) (citations omitted). Here, there is no dispute that the combination of GSM 04.08 and GSM 04.83, with or without the '068 patent, discloses all limitations of the asserted claims. The dispute is limited to whether there was sufficient motivation to combine.

At trial, Dr. Meldal focused primarily on the disclosure of GSM 04.08 alone, opining that it would have led to a dead end because GSM 04.08 discouraged or taught away from rejecting a second incoming call while the phone was already connected to a first call; it only related to rejection of a single call. Apple disputes whether GSM 04.08 teaches away from rejecting second incoming calls because it asserts that GSM 04.08's

definition of Cause No. 21 does not teach that a second caller would receive a busy signal. (D.I. 523 at 1) This dispute raised a question of fact regarding the disclosure of GSM 04.08 to a person of ordinary skill. The jury was free to find that GSM 04.08 teaches away from handling second incoming calls while connected to a first call.

With respect to the combination GSM 04.08 with GSM 04.83, however, Dr. Meldal only offered conclusory testimony that “[GSM 04.83] is small, [GSM 04.08] is big. And even having them side by side, it doesn’t tell you anything about call waiting while on the second call.” (D.I. 535 at 1404:14-16) He did not offer any further reasoning to rebut Apple’s evidence that a person of ordinary skill would have found it obvious when starting with GSM 04.83 (rather than GSM 04.08) to combine GSM 04.83 and GSM 04.08. As the jury was instructed, “[a] person of ordinary skill in the art is presumed to have knowledge of the relevant prior art at the time of the claimed invention.” (D.I. 536 at 1698:22-24) See *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *Union Carbide Corp. v. Am. Can Co.*, 724 F.2d 1567, 1576 (Fed. Cir. 1984) (finding that a person of ordinary skill is an “inventor working in his shop with the prior art references – which he is presumed to know – hanging on the walls around him”). Conclusory expert testimony on lack of motivation to combine “provides no support for the jury’s verdict.” *Belden Techs., Inc. v. Superior Essex Commc’ns LP*, 802 F. Supp. 555, 573 (D. Del. 2011).

Dr. Meldal did not provide any testimony to dispute Apple’s evidence that a person of ordinary skill in the art looking at **both** GSM 04.83 and GSM 04.08 would find it obvious to combine them. Nor did Dr. Meldal rebut Apple’s argument that the ‘068

patent supplies any additional inventive leap necessary to combine GSM 04.83 and GSM 04.08. Indeed, on cross-examination, Dr. Meldal agreed that GSM 04.83 references GSM 04.08 approximately sixteen times in twenty pages. (D.I. 535 at 1442:6-23, 1444:10-1445:17, 1454:1-12) GSM 04.83 expressly requires the use of GSM 04.08: “For the release of the waiting call the mobile station and the network shall act in accordance with . . . GSM 04.08.” (DTX 41 § 1.3.1; see also *id.* §§ 0.1, 0.2, 1.1, 1.2.1, 1.2.2, 1.2.3, 1.3.2, 1.3.3, 2.1.2, 2.1.5) Although GSM 04.08 is a voluminous document, Apple submitted evidence that a person of ordinary skill would know which sections to examine. MobileMedia’s validity theories did not address the fact that one of ordinary skill also knew the contents of GSM 04.83 and could start there. Besides the conclusory testimony of Dr. Meldal, MobileMedia’s evidence only related to starting with GSM 04.08.

In addition, MobileMedia’s infringement theory conflicts with Dr. Meldal’s invalidity opinion that a person of ordinary skill in the art would not have been able to combine GSM 04.83 and GSM 04.08. When discussing infringement, Dr. Meldal testified that a person of ordinary skill viewing GSM 24.083 § 1.3.1 regarding call rejection would refer to GSM 24.008, which describes the details of “how [one is] actually going to . . . indicate that [the user is] busy,” i.e., already on a first call. (D.I. 532 at 591:12-592:10) Specifically, Dr. Meldal asserted that the instructions in GSM 24.083 § 1.3.1 would lead a person of ordinary skill to various sections under GSM 24.008 §§ 5.2.2, 5.4.2, and 5.4.3 and, eventually, to § 5.4.3.5, which describes the “abnormal case.” (*Id.* at 591:1-596:15) When questioned about the similarity between

GSM 04.83/04.08 and GSM 24.083/24.008 on cross-examination, Dr. Meldal observed that GSM 24.083/24.008 made some “substantive changes” but recognized that the “documents deal[] with the same matter,” “are part of the sequence of documents [that] deal[] with the same matter,” and are “the updated version[s]” of GSM 04.83/04.08. (D.I. 535 at 1438:25-1439:6)

Although there are differences, the **relevant** sections of GSM 24.083/24.008 and GSM 04.83/04.08 are identical, on their face, for all material purposes. (*Compare* PTX 56 § 1.3.1 and PTX 60 §§ 5.2.2.3.4, 5.4.2, 5.4.3, 5.4.3.2, 5.4.3.3, 5.4.3.5 with DTX 41 § 1.3.1 and DTX 40 §§ 5.2.2.3.4, 5.4.2, 5.4.3, 5.4.3.2, 5.4.3.3, 5.4.3.5; see also D.I. 524, ex. A (providing a redline comparison)) Contrary to MobileMedia’s post-trial assertion (see D.I. 520 at 16), Dr. Meldal did not offer any testimony that conflicted with Dr. Akl’s testimony that, for all relevant purposes, the GSM 24.083/24.008 and GSM 04.83/04.08 standards were substantively the same. Although the question before the jury was whether a person of ordinary skill would have combined GSM 04.83 and GSM 04.08 in 1998, MobileMedia’s reliance on the GSM 24.083/GSM 24.008 combination was based on a person of ordinary skill following the instructions found in certain sections of GSM 24.083 and GSM 24.008 that had not materially changed since 1998. Therefore, MobileMedia’s justification for relying on the GSM 24.083/GSM 24.008 combination was inconsistent with its assertion that GSM 04.83 and 04.08 could not have been combined.

Finally, MobileMedia’s argument that the examiner knew about call waiting, generally, during reexamination is not relevant to the question of whether a person of

ordinary skill who considered GSM 04.83, specifically, would have been motivated to also use GSM 04.08 to reject a second incoming call. (D.I. 535 at 1445:18-1446:7) Apple offered evidence that GSM 04.83, which was not considered by the PTO, not only disclosed call waiting but also provided motivation to combine through its express instructions to follow GSM 04.08.

The court finds that, even if the jury had resolved all disputed facts in MobileMedia's favor, the evidence could not support a finding that the asserted claims of the '075 patent are valid over the asserted combinations. MobileMedia's evidence did not consider that a person of ordinary skill in the art is presumed to have knowledge of **all** prior art references and could thus start with GSM 04.83 and follow its instructions to use GSM 04.08, rather than considering GSM 04.08 first and hitting a dead end. Therefore, the court grants Apple's renewed motion for JMOL with respect to invalidity of asserted claims 5, 6, and 10 of the '075 patent, as the evidence cannot support a verdict that the '075 is valid over GSM 04.83 and GSM 04.08, with or without the additional '068 patent reference.

b. Infringement of the '075 patent

(1) Apple's evidence

MobileMedia's infringement theory at trial for the '075 patent was based on an "abnormal case," as defined in GSM 24.008 § 5.4.3.5. (PTX 60 § 5.4.3.5) Essentially, the abnormal case describes a scenario in which a base station may release a second call following the expiration of two timers and the failure of a mobile phone to respond as required under the GSM standard. (*Id.*; D.I. 532 at 583:22-585:13)

Apple submits that the jury's finding of direct infringement is not supported by the evidence for two independent reasons. First, Apple argues that MobileMedia did not present any evidence that the accused method of releasing a second call has ever actually occurred on any iPhone. Two Apple witnesses, Klahn and Dr. Akl, both testified that there is no evidence that a second incoming call has ever been released from an iPhone as a result of the abnormal case. (D.I. 533 at 867:13; D.I. 534 at 1084:15-21)

Apple's second argument is that, even if an iPhone has released a second incoming call using the accused method, MobileMedia failed to provide sufficient evidence that the accused DISCONNECT message is a "rejection message" that comprises "at least one information element indicating to the wireless system that the wireless system is to immediately release the incoming call," as required by each asserted claim of the '075 patent. (D.I. 518 at 9-10) To meet these limitations under the court's construction, the DISCONNECT message must be "**sufficient** to cause the base station to 'immediately release the call'" and include an information element "**indicating** to the wireless system" that "the wireless system must, **without requiring any additional action by or communication from the mobile phone,**" release the incoming call. (See D.I. 461 at 29) (emphasis added) Apple's expert, Dr. Akl, opined that the DISCONNECT message does not indicate to the base station that it must "immediately release" the call; instead, it "indicates to the base station to send the release message and enter the release request, which means it's telling it to wait for a response." (D.I. 534 at 1091:21-1092:2; see also *id.* at 1081:3-6, 1082:5-8, 1082:20-

1083:2, 1084:22-1086:1, 1133:9-1134:11) Apple asserts that MobileMedia's evidence shows the DISCONNECT message indicates to the wireless system to start the release process and wait for a response from the mobile phone – not to “immediately release the call.” (D.I. 518 at 9)

(2) MobileMedia's evidence

MobileMedia's expert, Dr. Meldal, conceded that he had no evidence that a single iPhone call has ever been disconnected under the abnormal case; he insisted that the absence of evidence was not relevant and “assume[d] iPhones disconnect[] a second call” (D.I. 533 at 744:10-25) MobileMedia contends that there is no requirement that the wireless system uses the information element to **actually** release the call. Rather, the “information element” need only have **sufficient** information to release the call. (D.I. 520 at 12-13) Moreover, MobileMedia avers that Apple's expert conceded that a call will be released by the wireless system in the abnormal case:

Q. And, in fact, is it reasonable to assume as an expert in the field that the carriers are using the timer that the standard tells them they should be using?

A. Sure.

Q. And if the carriers are using the timer as the standard requires, and that iPhone gets disconnected, the call will still drop after the timer expires twice; right?

A. Sure.

(D.I. 535 at 1128:23-1129:5)

With respect to the “information element” limitation, Dr. Meldal testified that the DISCONNECT message sent by the iPhone is a “rejection message” which includes “cause information element #17 (User Busy)” (hereinafter, “cause 17”). (D.I. 532 at

581:7-22, 591:23-592:2; PTX 56 § 1.3.1) Cause 17 indicates to the wireless system that the mobile user is “busy” and instructs the wireless system on how to “handle” the second incoming call. (D.I. 532 at 591:23-592:5; PTX 56 § 1.3.1) According to Dr. Meldal, one of two scenarios may then occur: (1) the “polite handshake” scenario, in which the mobile phone receives a release request from the base station and sends back a “release complete” that instructs the base station to release the call; or (2) the “abnormal case,” in which the call is released if a timer expires twice before the base station receives a “release complete” from the mobile phone. (D.I. 532 at 584:17-585:11, 593:11-596:15) It is Apple’s alleged use of the latter scenario that was accused of infringing the ‘075 patent at trial.

(3) Analysis

The court does not reach the issue of whether MobileMedia needed to show that the abnormal case has actually occurred in the iPhone and, if so, whether it offered sufficient evidence in that regard. Because MobileMedia did not present sufficient evidence to support a finding that cause 17 indicates to the wireless system that it must “immediately” release the second incoming call, the court will grant Apple’s renewed JMOL motion for non-infringement of the ‘075 patent.

For purposes of the “rejection message” and “information element” limitations, the parties emphasize different portions of the claim language and the court’s construction. Apple emphasizes that the “information element” of the rejection message needs to indicate to the wireless system that it “must” immediately release a call, while MobileMedia avers that the “rejection message” need only be “sufficient” to

release a call. To be clear, the court's construction requires that a "rejection message" be "**sufficient** to release a call." The asserted claims then further require the rejection message to include an "information element." That information element needs to "indicat[e] to the wireless system that the wireless system is to immediately release the call." Under the court's construction of "the wireless system is to immediately release the call," the information element has to indicate to the wireless system that it "**must**, without requiring additional action by or communication from the mobile phone," release the call.⁷

Therefore, to the extent MobileMedia argues that cause 17 is sufficient to release a call, it improperly imports the sufficiency requirement of the "rejection message" limitation to the "information element" limitation. It ignores the court's construction that the information element needs to indicate to the wireless system that it **must** immediately release the call.

There is no dispute that cause 17 is sent with the accused DISCONNECT message. MobileMedia did not offer any evidence, save Dr. Meldal's conclusory testimony,⁸ that cause 17 indicates to the wireless system that it must immediately release the second incoming call. Indeed, the evidence shows that cause 17 does not

⁷To the extent Apple argues that MobileMedia had to show that cause 17 "affirmatively indicates" to the wireless system that it must release the incoming call, the use of "affirmatively" is an improper modification of the court's construction. (See D.I. 518 at 10) The word "affirmatively" is not part of the court's construction.

⁸"When an expert opinion is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts contradict or otherwise render the opinion unreasonable, it cannot support a jury's verdict." *Integra Lifesciences I, Ltd. v. Merck KGaA*, 496 F.3d 1334, 1342 (Fed. Cir. 2007) (citations omitted).

indicate to the wireless system that it must immediately release a call. Dr. Meldal conceded that cause 17 is sent with the DISCONNECT message in the normal “polite handshake” scenario in which the base station releases the call only after receiving more messages from the mobile phone. (D.I. 532 at 596:10-15) The normal case does not constitute an “immediate” release under the court’s construction because the incoming call is released after the mobile unit performs the intermediate step of sending a “release complete” before the timer expires. Although MobileMedia offered evidence that cause 17, the alleged “information element,” is “sufficient” to cause the base station to immediately release a call in the abnormal case, it did not offer any evidence that cause 17 indicates that the wireless system “must” release a call without requiring additional action by or communication from the mobile phone. The only actions that cause 17 indicates a wireless system “must” do are to send a release request and wait for a response. As there was no evidence that cause 17 meets the asserted claims’ limitations for an “information element,” the court grants Apple’s renewed JMOL motion with respect to non-infringement of the ‘075 patent.

3. The ‘068 patent

The ‘068 patent, titled “Communication Terminal Device and Method for Controlling a Connecting State of a Call into a Desired Connection State upon a Predetermined Operation by a User,” was issued on May 30, 2000. It claims a foreign application priority date of March 19, 1996. A reexamination certificate was issued March 6, 2012, cancelling claims 17-22 and 27-32, amending several claims, and adding claims 33-57. The patent teaches a communication terminal device in which

“the connecting state of a call can certainly and easily be controlled without learning troublesome operating methods” (’068 patent, abstract)

Conventionally, a variety of functions are available to a telephone user if, during a call in progress, the user receives an incoming call from a third party. “For instance, [the user may suspend] the call in progress . . . and [connect with] a newly received call . . . , or disconnect[] the call presently talking and connect with the newly received call, or includ[e] the call received among the present call and talk with two parties at the same time, . . . or disconnect[] the call received and . . . continue talking with the present call.” (*Id.*, col. 1:22-28) The user executes one of these call controls by performing a predetermined operation. (*Id.*, col. 1:29-30) For example, under the GSM standard, pressing the “2” key then the “send” key suspends the call in progress and connects with the call received; pressing the “1” key then the “send” key disconnects the call in progress and connects with the call received; pressing the “3” key then the “send” key switches the call into a three-way call; and pressing the “0” key then the “send” key disconnects the call received and continues the call in progress. (*Id.*, col. 1:31-38) According to the ’068 patent, “these operating methods of call controls are very difficult to learn for the user, and often cause erroneous operations.” (*Id.*, col. 1:49-51)

The invention of the ’068 patent provides a “control means” for displaying the “processing items” available and controlling the call into the connecting state that the user selects. (*Id.*, col. 2:3-7) Reexamined claims 23 and 24 were asserted at trial.

Claim 23 recites:

23. A communication method for controlling a connecting state of a call into a desired connecting state upon a predetermined operation by a user, comprising the steps of:

displaying processing items available to the user relative to the call on a display;

selecting and determining a desired processing item out of said processing items displayed on said display by the user operating an input unit; and

controlling the processing items being displayed on said display and controlling the call into a connecting state corresponding to the processing item selected and determined by the operation of said input unit by the user, wherein said step of controlling the processing items includes displaying said processing items on said display when **only a single predetermined selection operation** is made by the user, wherein said step of controlling the processing items includes listing said processing items available to the call on said display for each call.

(Emphasis added) Claim 24 recites the same limitations as claim 23 except that it (1) recites “a predetermined selection operation” rather than “only a single predetermined selection operation,” and (2) adds the limitation “wherein when a processing for one call is determined by said step of selecting and a processing for another call is naturally determined, said step of controlling said processing items includes listing only processing items available to said one call on said display”:

24. A communicating method for controlling a connecting state of a call into a desired connecting state upon a predetermined operation by a user, comprising the steps of:

displaying processing items available to the user relative to the call on a display;

selecting and determining a desired processing item out of said processing items displayed on said display by the user operating an input unit; and

controlling the processing items being displayed on said display and controlling the call into a connecting state corresponding to the processing item selected and determined by the operation of said input unit by the user, wherein said step of controlling the processing items includes

displaying said processing items on said display when a **predetermined selection operation** is made by the user, wherein said step of controlling the processing items includes listing said processing items available to the call on said display for each call,

wherein when a processing for one call is determined by said step of selecting and a processing for another call is naturally determined, said step of controlling said processing items includes listing only processing items available to said one call on said display.

(Emphasis added)

a. Validity of the '068 patent

(1) Apple's evidence

Apple asserts that there was no legally sufficient basis for the jury to have found that asserted prior art U.S. Patent No. 5,754,636 ("Bayless") does not anticipate or render obvious the asserted claims of the '068 patent. Apple's expert, Dr. Ravin Balakrishnan ("Dr. Balakrishnan"), testified that Bayless discloses every limitation of claims 23 and 24 because it teaches a "Make & Answers Calls" window that offers control options that are displayed when a "Hotkey is pressed." (DTX 26, Figs. 41, 42; D.I. 533 at 941:23-948:8; D.I. 534 at 958:3-967:10, 1048:6-18) The only limitation of claim 23 that MobileMedia disputed at trial was whether Bayless discloses "only a single predetermined selection operation." (D.I. 535 at 1417:18-1418:1, 1433:16-19, 1435:2-14) The "Hotkey" taught by Bayless entails hitting multiple "keys," such as control+0. (DTX 26, Figs. 41, 42; D.I. 533 at 945:16-18, 948:5-6, 960:7-11) Dr. Balakrishnan opined that the result of pressing multiple keys still constitutes a single "predetermined selection operation." (D.I. 533 at 943:18-19, 945:5-22, 948:1-11; D.I. 534 at 960:2-25, 965:14-967:10, 1048:15-18)

Apple asserts that the '068 patent "makes clear that a single operation includes a user pressing more than a single key." (D.I. 518 at 13) It argues that the '068 patent distinguished between a "key" and an "operation" because some non-asserted claims recite a "key" as opposed to an "operation." (*Id.* at 12-13) It also points to a portion of the specification that states: "The above call controls are executed by performing a predetermined operation determined by a standard in the GSM system. For instance, in case of suspending the call in progress and talk with the call received, 'send' key should be pushed after pushing '2' key" ('068 patent, col. 1:29-33) Apple avers that this disclosure supports its position that the ordinary meaning of "operation" includes pressing multiple keys. (D.I. 518 at 12-13) Dr. Balakrishnan testified that, even if a "predetermined selection operation" requires pressing a single key, Bayless makes the use of a single key, such as F1 or F2, for the Hotkey obvious because a person of ordinary skill would know that using a single key is "something that ordinarily would be done." (D.I. 534 at 967:1-10)

With respect to claim 24, Apple argues that claim 24 does not contain the words "only a single" before "predetermined selection operation," so the claim allows multiple operations; because there was no dispute that Bayless at least discloses multiple predetermined selection operations, Bayless allegedly discloses claim 24. (D.I. 518 at 14) Dr. Balakrishnan testified in this regard at trial. (D.I. 534 at 961:11-25, 962:9-24, 963:14-16)

(2) MobileMedia's evidence

MobileMedia argues that Bayless's Hotkey does not meet claim 23's requirement

for “only a single” predetermined selection operation. (D.I. 535 at 1410:10-15) Dr. Meldal testified that Bayless discloses using multiple keys – a “function” key (such as the control key) and a “regular” key (such as the zero key) – and that each key is a separate predetermined selection operation; even pressing two keys “simultaneously with one hand” does not constitute a “single” predetermined selection operation. (*Id.* at 1408:22-1409:4, 1409:24-1410:15, 1432:20-25) Essentially, Dr. Meldal opined that each “key” corresponds to a “predetermined selection operation.” MobileMedia points out Dr. Balakrishnan’s acknowledgment that the PTO allowed the ‘068 patent over Bayless because Bayless requires “a two-step procedure.” (D.I. 534 at 1008:16-24, 1014:3-6, 1015:24-1017:1) By claiming a “one-step, one-key” operation for displaying processing items, the ‘068 patent allegedly “relieved the user of remembering” the complex combinations previously needed to execute various functions. (D.I. 535 at 1410:16-1411:15) To rebut Dr. Balakrishnan’s testimony that use of a single key from the disclosure in Bayless was obvious, Dr. Meldal opined that Bayless and the ‘068 patent addressed different problems in different fields, such that a person of ordinary skill would not have found it obvious to substitute a single key for the two-key Hotkey in Bayless. (*Id.* at 1412:25-1414:5, 1480:12-1481:13)

In response to Apple’s evidence that Bayless also discloses the “predetermined selection operation” of claim 24, Dr. Meldal opined that the “predetermined selection operation” of claim 24 is implicitly “still a single one.” (*Id.* at 1412:15-16) He submitted that the reason claim 24 does not include the language “only a single” before “predetermined selection operation” is because, unlike claim 23, the PTO did not

engage in a discussion of claim 24's validity during prosecution; claim 24 was allowed without amendment due to additional narrowing limitations not found in claim 23. (*Id.* at 1411:22-1412:24) Dr. Meldal further testified that the claimed invention of the '068 patent would not have been obvious in view of Bayless and the knowledge in the industry because Bayless pointed away from using a single predetermined selection operation, and the benefit of using a single predetermined selection operation was supposedly less important for computers than for mobile phones. (*Id.* at 1413:1-1414:5)

(3) Analysis

The court first addresses claim 23. The parties focused on whether the disclosure in Bayless of hitting more than one key meets claim 23's "only a single predetermined selection operation" limitation. To support its argument for the distinction between "keys" and "operations," Apple only cites Dr. Meldal's observation that some claims of the '068 patent recite a "key" rather than an "operation" and the background section of the '068 patent describing the prior art as disclosing the use of two "keys" for one "operation." (See D.I. 518 at 12-13; '068 patent, col. 1:29-33) Apple's argument that the '068 patent accords different meanings to "keys" and "operations" is a new claim construction argument, brought to the court's attention for the first time after the jury verdict. Neither party objected to the court's instruction to the jury to use the plain and ordinary meaning of "predetermined selection operation." Before its renewed motion for JMOL, Apple never sought a construction to draw a distinction between a "key" and an "operation." In fact, Apple sought the same

construction for “predetermined operation **key**” and “predetermined selection **operation**” in the parties’ joint claim construction statement.⁹ (D.I. 239-1 at 11) (emphasis added)

Apple argues in its post-trial briefing that “[t]o the extent any dispute regarding the proper interpretation of [‘predetermined selection operation’] remains, that dispute must be resolved.” (D.I. 518 at 17 n.5) (citing *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008)) Contrary to Apple’s assertion, a litigant “cannot be allowed to create a new claim construction dispute following the close of [a] jury trial.” *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008). In *Broadcom Corp.*, the defendant argued that, by failing to construe the claim term “networks,” the district court erroneously left an issue of claim construction to the jury. The Federal Circuit disagreed, holding that, because the defendant never requested a construction until after the presentation of all of the evidence to the jury, the defendant “had waived its right to request a construction of ‘networks’” and “ha[d] thereby implicitly conceded that the meaning[] of ‘networks’ is clear and not in need of construction.” *Id.* (citing *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004)). Importantly, the Court distinguished the scenario from *O2 Micro*: “Unlike in *O2 Micro*, where the parties disputed the proper construction of a term at a pre-trial *Markman* hearing, [the defendant] . . . **failed to offer its proposed construction . . . at or prior to trial**, and we reject such arguments raised for the first time after the jury

⁹The parties’ proposed constructions for “predetermined operation key”/ “predetermined selection operation” related to whether the key or operation had to be a single predetermined key or a physical “push-button.” (D.I. 239-1 at 11)

verdict.”¹⁰ *Id.* (emphasis added). Because Apple never requested a construction or offered a construction to distinguish an “operation” from a “key,” its argument in that regard is an untimely claim construction argument. *Id.*; see also *ArcelorMittal France v. AK Steel Corp.*, 811 F. Supp. 2d 960, 972 (D. Del. 2011) (denying a new trial because, although conflicting evidence had been presented to the jury regarding the meaning of a term, the party moving for a new trial did not identify the term as being in dispute until after trial), *aff’d in part, rev’d in part*, 700 F.3d 1314 (Fed. Cir. 2012); *Edwards Lifesciences AG v. Corevalve, Inc.*, Civ. No. 08-91, 2011 WL 446203, at *4 (D. Del. Feb. 7, 2011) (rejecting a renewed JMOL motion on the basis that the movants offered untimely claim construction arguments).

Dr. Meldal’s testimony provided sufficient support for the jury’s implied conclusion that, under the ordinary meaning of a “predetermined selection operation,” Bayless’s Hotkey disclosure constitutes multiple “predetermined selection operations”

¹⁰Apple correctly asserts that it was not too late for the court to clarify claim construction at trial. (D.I. 523 at 10 n.9) (citing *Pressure Prods. Med. Supplies, Inc. v. Greatbatch Ltd.*, 599 F.3d 1308, 1315 (Fed. Cir. 2010)) However, as provided in this court’s guidelines and consistent with *Broadcom Corp.*, 543 F.3d at 694, the window for litigants to identify disputed terms to the court closes at the end of a jury trial:

The claim construction that flows from summary judgment is subject to amending by the court. Should the parties thereafter focus on words that were previously unidentified to the court, or otherwise backpeddle from the court’s current construction, the court will construe the new term(s) as needed and may clarify, revise, expand or narrow its prior constructions of previously-identified terms in connection with this exercise **up until the case goes to the jury.**

Briefing Guidelines in Complex Cases (updated July 11, 2011) (emphasis added); see also *Guidelines for Claim Construction Rulings in Patent Cases* (updated Dec. 21, 2010).

(rather than one “predetermined selection operation”) and, therefore, does not anticipate claim 23. In addition, Dr. Meldal offered testimony to rebut Dr. Balakrishnan’s testimony that claim 23 would have been obvious in light of Bayless and the knowledge of one of ordinary skill in the art. While Dr. Balakrishnan testified that it would have been obvious to one of ordinary skill to substitute a single key, such as F1 or F2, for Bayless’s Hotkey, Dr. Meldal opined that Bayless and the ‘068 patent addressed different problems in different fields, such that a person of ordinary skill would not have found such substitution to be obvious. The jury was free to believe Dr. Meldal’s opinion on obviousness. Accordingly, the court will not disturb the jury’s finding that claim 23 of the ‘068 patent is valid.

With respect to the validity of claim 24, MobileMedia’s only argument that Bayless does not anticipate claim 24 was the same argument it made for claim 23 – that while Bayless discloses multiple predetermined selection operations, it does not disclose “only a single” predetermined selection operation. (See D.I. 535 at 1411:22-1412:24; see also D.I. 520 at 21-24) Unlike the new “key” versus “operation” claim construction argument for claim 23, the parties did identify a pre-trial dispute in their joint claim construction chart regarding whether a “predetermined selection operation” must refer to “a single” predetermined selection operation. (See D.I. 239-1 at 11) Because the parties presented the dispute regarding the singularity of “predetermined selection operation” to the court during claim construction proceedings, the court has a duty to resolve it.¹¹ See *O2 Micro*, 521 F.3d at 1362.

¹¹Even if the court had construed the limitation “predetermined selection operation” before trial, the distinction between “key” and “operation” would not have

The court now clarifies that a “predetermined selection operation” is not limited to “a single” predetermined selection operation. In contrast to claim 23, claim 24 does not explicitly limit “predetermined selection operation” to a single such operation, even though both claims were amended during reexamination. MobileMedia argued during claim construction proceedings, as it did at trial, that claim 24 is also limited to a single “predetermined selection operation.” (See, e.g., D.I. 239-1 at 11; D.I. 303 at 25) It averred that claim 24 was allowed during reexamination without the words “only a single” because there was no discussion necessary about the validity of claim 24. Essentially, MobileMedia speculates that the omission of the words “only a single” in claim 24 should not be given any significance.

The court is not persuaded. Claim 24 was originally presented for reexamination as a claim dependent from claim 23 and was allowed before any claim was amended to specify “only a single” predetermined selection operation. (See D.I. 387 at JA6423, JA6513-14, JA6522) The words “only a single” were added to claim 23 to overcome a rejection (*id.* at JA6514, JA6529, JA6546) which did not apply to claim 24, as the patent owner explicitly noted that the version of claim 24 that had already been allowed “ha[d] been rewritten in independent form” but was “otherwise unchanged.” (*id.* at JA 6522) The patentability of claim 24 was confirmed because it recited displaying only the processing items relative to one call, not because it was limited to a single

been resolved by that construction and, thus, would still be an untimely claim construction argument. In their claim construction arguments, the parties drew no distinction between “predetermined selection **operation**” and “predetermined operation **key**,” and asked the court to construe those limitations together. (See D.I. 239-1 at 11) (emphasis added)

predetermined selection operation. (*Id.* at JA6546-47) Accordingly, the file history does not contain any disavowal of the plurality of “a predetermined selection operation,” as recited in claim 24. A general rule of claim construction is that “a” or “an” can indicate plural. See *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008). The court does not find any evidence in the intrinsic record that would warrant departure from that general rule, so “a predetermined selection operation” means “one or more than one predetermined selection operation.”¹²

The jury’s verdict with respect to the validity of claim 24 of the ‘068 patent is inconsistent with the understanding that “a predetermined selection operation” does not require only a single predetermined selection operation. Given the undisputed fact that Bayless discloses multiple predetermined selection operations, the court finds that Bayless teaches “a predetermined selection operation.” Because finding claim 24 valid in view of Bayless required the implicit finding that “a predetermined selection operation” requires only a single such operation, the jury’s verdict in that regard cannot be supported under the court’s construction. The court grants Apple’s renewed JMOL motion with respect to the validity of claim 24 of the ‘068 patent.

b. Infringement of the ‘068 patent

(1) Apple’s evidence

With respect to infringement of the ‘068 patent, Apple asserts three arguments:

(1) MobileMedia did not present any evidence that **Apple** practices the claimed

¹²The court construes “a predetermined selection operation,” rather than just “predetermined selection operation,” to distinguish from claim 23’s “only a single predetermined selection operation.”

limitations “predetermined selection operation is made **by the user**” and “selecting and determining a desired processing item . . . **by the user** operating an input unit;” (2) MobileMedia did not present evidence that the iPhone displays call handling options **in response to** a “predetermined selection operation;” and (3) MobileMedia presented no evidence that the iPhone allows “selecting **and** determining” by the user. (D.I. 518 at 14-18) (emphasis added) The court summarizes each argument in turn.

First, Apple argues that the methods in claims 23 and 24 expressly require a **user** to make a predetermined selection operation and to select and determine the desired processing item. (*Id.* at 15) Apple avers that, for purposes of direct infringement, MobileMedia only accused acts performed by users of the iPhone, not Apple. (See D.I. 533 at 764:6-11) To the extent MobileMedia tried to rely on the stipulation that Apple employees have operated the accused products in the manner instructed by user guides, Apple avers that Dr. Meldal failed to present evidence linking anything in the user guides to the accused infringing conduct. (D.I. 523 at 9)

Second, Apple submits that a user tapping the iPhone’s “Hold Call + Answer” icon cannot satisfy the limitation of a “predetermined selection operation.” (D.I. 518 at 15) Apple submits, and MobileMedia does not dispute, that “automatic display of call processing items in response to a change in the call status was disclaimed” during prosecution, such that the claimed invention requires the phone to wait for the user to make a predetermined selection operation before displaying the processing items that

are available.¹³ (*Id.* at 16; *see also* D.I. 303 at 19; D.I. 363 at 14; JTX 8F at 5528)

According to Apple, the evidence shows that the iPhone does not display the “Swap” and “Merge Calls” icons (the accused “processing items”) in response to a user tapping the “Hold Call + Answer” icon (the accused “predetermined selection operation”).

Rather, Apple’s expert, Dr. Balakrishnan, testified that it is only after the user taps the “Hold Call + Answer” icon **and** a subsequent notification from the wireless system that the call status has actually changed (to answering the incoming call) that the iPhone displays the “Swap” and “Merge Calls” icons. (D.I. 534 at 926:23-928:22, 935:6-13)

Apple contends that the “Hold Call + Answer” icon is a “processing item” rather than a “predetermined selection operation” and that “displaying processing items [“Swap” and “Merge Calls”] in response to activating a processing item . . . falls squarely within the disclaimed embodiments.” (D.I. 518 at 17) (footnote omitted) Moreover, Apple avers that tapping the “Hold Call + Answer” icon cannot meet the “predetermined selection operation” limitation because the ‘068 patent requires the predetermined selection operation to **always** be available to the user, and the “Hold Call + Answer” icon is not always available to the user. (*Id.*) It asserts that the evidence shows the “Hold Call + Answer” icon is only available in response to the iPhone receiving a second incoming call while already connected to a first call. (D.I. 533 at 775:23-25)

Third, Apple contends that MobileMedia presented no evidence that the iPhone allows “selecting and determining” by a user. The parties’ experts agreed that

¹³Specifically, Apple avers that the first three of five embodiments disclosed in the ‘068 patent’s specification were disclaimed. These three embodiments disclosed automatically displaying call processing items in response to a change in call status. (See D.I. 533 at 784:22-785:22)

“selecting and determining” requires two acts by the user. (D.I. 532 at 614:24-617:1; D.I. 533 at 909:9-915:3; see also D.I. 536 at 1569:22-23) Apple’s expert, Dr. Balakrishnan, opined that a single tap on the “Swap” or “Merge Calls” icons does not constitute the two separate components of selecting and determining. (D.I. 533 at 915:1-6) In addition, Apple contends that MobileMedia “cannot have it both ways: that a single tap on the iPhone constitutes a single operation for purposes [of validity] and the two steps required by ‘selecting and determining’ for [purposes of infringement].” (D.I. 518 at 18)

(2) MobileMedia’s evidence

MobileMedia asserts that whether there is evidence of Apple practicing the accused steps is irrelevant because claim 23 only requires that the iPhone be **configured** to display processing items when “a single predetermined selection operation is made by the user.” (D.I. 520 at 17-18) In addition, in stipulated facts presented to the jury, Apple employees “use iPhones in the manner instructed by, among other things, the user manuals.” (*Id.* at 2, 18; D.I. 533 at 835:15-22, 836:24-837:9; JTX 14 at ¶ 22) Klahn, an Apple engineer, testified – consistent with the stipulation – that he had used the “Hold Call + Answer” feature on the iPhone. (D.I. 533 at 871:5-7)

MobileMedia’s evidence was directed at showing that, after the user taps the “Hold Call + Answer” icon, the processing items “Swap” and “Merge Calls” are displayed; no other trigger is required. (D.I. 532 at 617:23-618:20) MobileMedia further argued that tapping the “Swap” or “Merge Calls” icons practice the two-step “selecting

and determining” limitation because the user touching down on the icon is “selecting” and lifting up off the icon is “determining.” (*Id.* at 615:23-616:6; D.I. 533 at 764:6-11) Specifically, Dr. Meldal described how the iPhone “selects” a processing item displayed on the screen: “When you touch down, the icon lights up. It becomes blue, indicating that you have selected that processing item.” (D.I. 532 at 615:23-616:2) He then identified how the iPhone meets the “determining” step: “By lifting the finger up, you indicate, you determine that that is the action to be taken, and that’s when the action is taken.” (*Id.* at 616:3-5)

(3) Analysis

“Unless the claim language only requires the capacity to perform a particular claim element, [the Federal Circuit] ha[s] held that it is not enough to simply show that a product is capable of infringement; the patent owner must show evidence of specific instances of direct infringement.” *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1329 (Fed. Cir. 2010). The asserted claims of the ‘068 patent are methods claims reciting required steps, so MobileMedia “must establish that more likely than not at least one user” used the iPhone to perform the claimed steps. *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 521 (Fed. Cir. 2012); *see also ACCO Brands, Inc. v. ABA Locks Mfrs. Co.*, 501 F.3d 1307, 1313 (Fed. Cir. 2007).

Although circumstantial evidence may be used to prove direct infringement, “the evidence must still indicate that infringement actually occurred.” *SRI Int’l Inc. v. Internet Sec. Sys., Inc.*, 647 F. Supp. 2d 323, 336 (D. Del. 2009). In a recent case also involving Apple, a court held that “citations to Apple employees’ testimony . . . which

generally acknowledge the accused products were tested [and] generally acknowledged the accused features [] fail to show any Apple employee actually performed all the claimed steps.” *Mirror Worlds, LLC v. Apple, Inc.*, 784 F. Supp. 2d 703 (E.D. Tex. 2011), *aff’d*, 692 F.3d 1351 (Fed. Cir. 2012). Here, however, the stipulation presented at trial went beyond that in *Mirror Worlds*. It was more than a general acknowledgment of product testing or accused features – it acknowledged that Apple employees actually follow the user manuals.

MobileMedia’s expert, Philip Johnson, directed the jury to pages of the iPhone user manual for iOS 4.2 software which show a user how to handle two calls at the same time. (D.I. 531 at 463:3-6, 493:9-19) The user manual describes the functions of the “Switch” and “Merge Calls” keys, as well as how to respond to a second incoming call: “If you receive a second call [while on a first call], iPhone beeps and shows the caller’s information and a list of options. . . . To hold the first call and answer the new one: Tap Hold Call + Answer.” (PTX 23 at 67-68) In addition, an Apple engineer testified that he had used the accused “Hold Call + Answer” feature on the iPhone. Considering the stipulation, the user manuals themselves, and the testimony of at least one Apple employee that he had used the accused feature, MobileMedia presented sufficient evidence for the jury to find that, more likely than not, a specific instance of the accused infringement by Apple, through its employees, has occurred.

With respect to whether the “Hold Call + Answer” key is a “predetermined selection operation,” Dr. Meldal testified that when the “Hold Call + Answer” key is pressed, “processing items” are displayed. (D.I. 532 at 617:23-618:13) Dr.

Balakrishnan offered conflicting testimony, which created a factual dispute as to what actually triggers the display of “processing items.” Faced with this issue of fact, the jury was free to credit Dr. Meldal’s testimony.

In addition, Apple’s argument that the “Hold Call + Answer” icon is a “processing item” rather than a “predetermined selection operation” relates to mapping the accused features to the claim limitations, which is the jury’s role. Although Dr. Meldal opined at trial that the “Hold Call + Answer” icon “fits the definition of the processing items” and “could serve as a processing item” (D.I. 533 at 779:21-24, 781:18-22), he asserted that, for purposes of mapping the iPhone functionality to the asserted claims in his infringement analysis, the “Hold Call + Answer” icon is a “predetermined selection operation,” separate from the processing items “Swap” and “Merge Calls.” (D.I. 532 at 617:23-618:20; D.I. 533 at 823:1-18) Dr. Meldal’s testimony that the “Hold Call + Answer” icon, by itself, meets the court’s construction of “processing items” is not inconsistent with his infringement theory that the “Hold Call + Answer” icon is the “predetermined selection operation” that triggers the display of the “Swap” and “Merge Calls” processing items. The jury had a sufficient basis to find that the “Hold Call + Answer” icon is a “predetermined selection operation.”

Apple’s argument that a “predetermined selection operation” must **always** be available to the user is a new argument. Apple’s only citation to the record simply shows that Dr. Meldal “wanted to direct [the jury’s] attention to the . . . opportunity that the user has to touch a key and then these sets of call handling options become available to the user.” (D.I. 532 at 611:2-10) Dr. Meldal did not concede that the

predetermined selection operation must always be available to the user, and Apple did not seek such a narrowing claim construction before or during trial.

Finally, the parties' experts agreed that "selecting and determining" is a two-step limitation. Therefore, whether the action of touching the "Hold Call + Answer" icon is a one-step (single tap) process or a two-step (touch down, touch up) process was an issue for the jury regarding the proper application of the claim term "selecting and determining" to the accused process. See *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012) ("It was up to the jury to determine from the evidence presented at trial whether the [accused] system satisfied the plain and ordinary meaning of the . . . limitations."); see also *Biotec Biologische Naturverpackungen GmbH & Co. v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed. Cir. 2001) (finding that the proper application of a claim term to an accused process, as opposed to the scope of the term, is a proper issue for the jury). Faced with the conflicting expert testimony, the jury was free to credit Dr. Meldal's testimony that the accused feature is a two-step process that meets the "selecting and determining" limitation.

For all the foregoing reasons, the court finds that there was sufficient evidence to support the jury's verdict of infringement for the '068 patent.

4. The '078 patent

The '078 patent, titled "Device for Personal Communications, Data Collection and Data Processing, and a Circuit Card," relates to a device with a camera unit for data collection. It claims a foreign application priority date of June 12, 1995 and was

issued on July 30, 2002.¹⁴

The invention of the '078 patent is a device comprising a data processing unit, a display, one or more peripheral device interfaces, one or more memory units, software, and a camera unit for data collection. ('078 patent, col. 2:25-67, 3:1-55) The device has a radiotelephone, such as a cellular mobile phone unit, so that it can be used as a hand-held telephone. (*Id.*, col. 3:37-53) The camera unit scans in information or a picture through optics, and the image is then transferred to an image processing unit and through a microprocessor to one or more memory units. (*Id.*, col. 4:48-54) When the user wants to view the image, "[t]he desired image information is read from memory unit by means of [the] microprocessor of [a] camera card, and the image information is transmitted to [the] processor . . . and further to [the] display via [a] display controller. (*Id.*, col. 4:57-62) The "image processing unit processes the image information into a suitable form to be presented to the user" (*Id.*, col. 4:62-64)

Independent claim 73 was asserted at trial and teaches a "cellular mobile phone" comprising:

a built in camera unit for obtaining image information;

a user interface for enabling a user to input signals to operate the camera unit;

a microprocessor adapted to control the operations of the camera unit in response to input signals from the user interface, **and to process image information** received by the camera unit; and

means, coupled to said microprocessor, for transmitting image information

¹⁴An ex parte reexamination of the '078 patent is currently pending. On April 16, 2013, the PTO issued a non-final office action rejecting all claims, including claim 73, as invalid. (D.I. 529, ex. A)

processed by said microprocessor to another location using a radio frequency channel;

and wherein the camera unit comprises:

optics for obtaining image information;

an image sensor for obtaining image information; and means for processing and for storing at least a portion of the image information obtained by the camera unit for later recall and processing.

(Emphasis added)

a. Validity of the '078 patent

(1) Apple's evidence

Apple submitted two prior art references at trial in support of its invalidity arguments for the '078 patent: Japanese Unexamined Patent Publication No. H6-133081 ("Kyocera" or "Morita"), and U.S. Patent No. 5,550,646 ("Lucent" or "Hassan"). (D.I. 535 at 1236:1-5, 1269:8-15) Kyocera is a Japanese patent application titled "Electronic Still Camera with Mobile Telephone Function" and published on May 13, 1994, and Lucent is a patent titled "Image Communication System and Method" and filed on September 13, 1993. (DTX 70; DTX 209) Apple asserts that the Kyocera reference alone or the Kyocera reference in combination with the Lucent reference discloses every limitation of claim 73 of the '078 patent.

Apple's expert, Dr. Jack D. Grimes ("Dr. Grimes"), opined that Kyocera teaches using "control circuit 25" – a "microprocessor" that both (1) "control[s] the operations of the camera unit" in response to user input, and (2) "process[es] image information received by the camera unit," as required by claim 73. (D.I. 535 at 1249:24-1261:7; D.I. 518, app. C) The parties did not dispute that control circuit 25 controls camera

operations based on user input. (D.I. 535 at 1474:15-1475:3) Rather, the dispute was focused on the other required functions of the microprocessor. In its post-trial briefing, Apple argues that Dr. Meldal made two new arguments that were outside the scope of his expert reports, that: (1) Kyocera's control circuit 25 is not "coupled to" the "means for transmitting" (*id.* at 1382:18-1383:15; see *also* D.I. 536 at 1549:17-19), and (2) Kyocera does not disclose "storing . . . image information . . . for later recall and processing" because each picture goes "straight through the cell tower and is gone." (D.I. 535 at 1383:22-1384:6) Not only were these arguments allegedly unvetted, they also allegedly contradicted Dr. Meldal's admission that control circuit 25 is "connected" to another circuit ("control circuit 28") and that Kyocera discloses storing some pictures. (*Id.* at 1469:15-1470:5) Apple further avers that Dr. Meldal's testimony that control circuit 25 does not "process image information" because it converts data in conjunction with other circuits improperly adds a limitation requiring the "microprocessor" to act alone. (D.I. 518 at 23) (citing D.I. 535 at 1381:24-1382:17)

Alternatively, Apple argues that there was clear and convincing evidence that the combination of Kyocera and Lucent renders claim 73 obvious. (*Id.* at 19, 25) According to Apple, MobileMedia did not dispute that Kyocera and Lucent, together, disclose every limitation of claim 73. Apple's expert, Dr. Grimes, testified that a person of ordinary skill in the art would have found it obvious to combine Kyocera with Lucent because: (1) they are in the same field and share the same goal; (2) Lucent discloses a camera phone controlled by an off-the-shelf microprocessor; (3) a person of ordinary skill would have understood the benefits taught by Lucent of using a microprocessor to

process image data and improve picture quality; and (4) a person of ordinary skill would have known about the cost advantages of using an embedded microprocessor in an electronic device. (D.I. 535 at 1251:3-1252:16, 1274:24-1275:5, 1275:6-1276:11; see *also* DTX 209 at col. 3:27-30, 3:47-50) Apple contends that MobileMedia's rebuttal evidence of obviousness was a single, conclusory response from Dr. Meldal that did not identify any limitation missing from the combination:

Q: Okay. We can move – so in your view, is the invention claimed in [claim] 73 obvious in view of just [Kyocera] or [Kyocera] combined with [Lucent]?

A. It is not.

(D.I. 535 at 1393:10-13)

(2) MobileMedia's evidence

In response, MobileMedia asserted at trial that Kyocera only uses the term "control circuit" and never mentions the term "microprocessor." (*Id.* at 1327:22-1328:2) It argues that Apple's only evidence that Kyocera's use of the term "control circuit" refers to a "microprocessor" was a "thin argument by analogy" based on a translation of a different Japanese patent. (D.I. 520 at 8; see *also* D.I. 535 at 1253:2-1257:18)

Even if control circuit 25 were a microprocessor, MobileMedia argued at trial that Kyocera's disclosure of control circuit 25 fails to meet three limitations of the "microprocessor" recited in claim 73 of the '078 patent: (1) adaption "to process image information;" (2) "means, coupled to said microprocessor, for transmitting image information," and (3) "means . . . for storing [image information] for later recall and processing." (D.I. 536 at 1548:14-1550:16) MobileMedia's expert, Dr. Meldal, testified

that control circuit 25 in Kyocera is simply a switch that controls the circuit in an on/off manner; it does not process anything. (D.I. 535 at 1379:16-1380:15) Furthermore, he testified that control circuit 25 is connected to control circuit 28, not to a means for transmitting, and that Kyocera does not teach storing images for later recall and processing. (*Id.* at 1382:22-1383:6, 1383:22-1384:6) To the extent Apple contests Dr. Meldal's testimony as previously undisclosed theories, MobileMedia asserts that Dr. Meldal's June 3, 2012 declaration disclosed these theories. (D.I. 521, ex. 2 at ¶¶ 33-41) In any case, MobileMedia argues, Apple did not object at trial that Dr. Meldal's testimony was outside the scope of his expert report. (D.I. 520 at 8 n.5)

Regarding the combination of Kyocera and Lucent, MobileMedia avers that Apple's evidence for motivation to combine relied simply on "common sense" and "bald statements." (*Id.* at 9) (citing D.I. 535 at 1274:20-21, 1275:21-22, 1385:25-1388:13, 1389:5-19) MobileMedia avers that Dr. Meldal responded to Apple's arguments when he testified that, based on his expertise, one of ordinary skill would not have been able to combine the microprocessor disclosed in Lucent with the disclosure of Kyocera due to the complexity and sophistication of software and hardware integration and development.¹⁵ (D.I. 535 at 1385:25-1388:13)

(3) Analysis

Whether or not Kyocera discloses a microprocessor that meets the limitations of

¹⁵MobileMedia also argues in its post-trial briefing that Apple's expert did not opine that Lucent discloses a "means for processing and for storing at least a portion of the image information obtained by the camera unit for later recall and processing." However, Dr. Grimes offered testimony that the digital signal processor of Lucent performs these functions. (D.I. 535 at 1271:13-1274:14, 1276:7-11; see also DTX 209, fig. 2)

claim 73 of the '078 patent presented an issue of material fact for the jury to decide. Apple did not object to Dr. Meldal's testimony at trial that control circuit 25 is not "coupled to" a "means for transmitting" image information and does not store image information for later recall and processing. As such, its contention that those opinions were outside the scope of his expert report have been waived. See, e.g., *ArcelorMittal France*, 811 F. Supp. 2d at 970 (finding that the failure to object to testimony at trial waives the argument that the testimony was prejudicial for being beyond the scope of expert reports).

Moreover, MobileMedia's arguments at trial did not contradict the undisputed facts of record. There was no dispute at trial that Kyocera disclosed a connection between control circuit 25 and control circuit 28, but that connection does not necessarily mean that control circuit 25 is "coupled to" a "means for transmitting." Dr. Meldal testified that control circuit 28 is a "modulation circuit" that controls the ultimate transmission of the image, not that control circuit 28 is a means for transmitting image information. (D.I. 535 at 1383:7-21) Likewise, the undisputed fact that Kyocera discloses "storing" some images does not contradict MobileMedia's argument that Kyocera does not disclose storing images "for later recall and processing," as recited in claim 73. As for Apple's argument that Dr. Meldal improperly added a limitation requiring the "microprocessor" to act alone, the court finds that, viewing the evidence in the light most favorable to MobileMedia, Dr. Meldal's testimony is consistent with his testimony that control circuit essentially acts as a switch and that other components disclosed in Kyocera process the image information. (*Id.* at 1381:24-1382:17)

With respect to the Kyocera-Lucent combination, the court finds that there was no material dispute at trial that Kyocera and Lucent, together, disclose all limitations of claim 73. Rather, the dispute related to whether one of ordinary skill would have found it obvious to combine the two references. Both parties' experts gave supporting reasoning for their opinions on this issue. Dr. Grimes explained that Kyocera and Lucent discuss similar technologies, that Lucent discloses a microprocessor that was available on the market, and that a person of ordinary skill would have understood the benefits and cost advantages of combining the prior art references. (*Id.* at 1251:3-1252:16, 1274:24-1275:5, 1275:6-1276:11) On the other hand, Dr. Meldal relied on the complexity of making the technology work together. (*Id.* at 1385:25-1388:13)

The jury implicitly chose to believe Dr. Meldal's, rather than Dr. Grimes', testimony regarding the disclosure of Kyocera and the motivation to combine Kyocera and Lucent. Dr. Meldal's testimony was supported by sufficient evidence and, thus, the court denies Apple's renewed JMOL motion regarding invalidity of the '078 patent.

b. Infringement of the '078 patent

(1) Apple's evidence

Apple contends that MobileMedia's infringement case for the '078 patent was based on a new and unsupported claim construction argument related to the "microprocessor" limitation. Claim 73 of the '078 patent requires "a microprocessor adapted to control the operations of the camera unit in response to input signals from the user interface, and to process image information received by the camera unit"

The parties do not dispute that the microprocessor must perform two functions: (1)

“control the operation of the camera unit;” and (2) “process image information.”

At the beginning of trial, MobileMedia’s infringement theory was that the iPhone’s application processor (the “Cortex-A8”) meets the “microprocessor” limitation because it (1) “control[s] the operations of the camera unit, and (2) “take[s] image information, wrap[s] it, [and] convert[s] it a little bit into a suitable format for e-mailing.” (D.I. 532 at 543:14-544:11) Apple contends that, in the middle of trial, MobileMedia switched to a new infringement theory: that the Cortex-A8 meets the second requirement for “process[ing] image information” because it converts an email with an embedded picture into a “MIME” data format during transmission and, thus, involves no “image processing.” (D.I. 518 at 19-20) (citing D.I. 536 at 1540:4-16)

Apple’s expert, Dr. Grimes, opined that the Cortex-A8 does not process image information because

[i]t’s not doing anything to the information about the image. What it’s doing is it’s converting essentially binary data into a character representation of it.

So it’s like – it’s like translating something from one language into another. You are not processing what was said. You’re forming a different representation for the same information.

(D.I. 535 at 1371:6-18) Rather, Dr. Grimes pointed to several other chips (the “image processors”) in the iPhone that process image information.¹⁶ (D.I. 532 at 662:11-15, 675:16-20, 677:22-678:3)

Apple asserts that, during closing argument, MobileMedia’s counsel “read the

¹⁶There is no dispute that these image processors do not meet the “microprocessor” limitation because they do not also control camera operations. (D.I. 534 at 1203:10-1206:7)

image processing requirement out of the claim” by stating:

I want to point out, because some witnesses have been a little loose to speak, and Dr. Meldal tried to correct it when counsel asked him some loose question. It’s the process image information. It’s not to process, it’s not to – it’s not for image processing. All right? There’s a difference. **Image processing** is the thing you do to make the picture.

. . . **To process image information** is to take the picture after you get it and do something else with it.

(D.I. 536 at 1538:7-20)

(2) MobileMedia’s evidence

MobileMedia avers that its expert, Dr. Meldal, testified at length regarding how the Cortex A-8 microprocessor processes image information received by the camera unit. (See D.I. 532 at 541:18-542:1, 542:12-544:13, 544:21-545:3; D.I. 533 at 801:4-19, 803:13-18, 806:18-810:4) Dr. Meldal testified that he examined the iPhone architecture and software code and found that it performs this function because it converts image information into a format suitable for emailing. (D.I. 532 at 542:24-544:13)

MobileMedia also avers that Dr. Grimes agreed that a fair definition of the term “processing” is to convert information from one format to another:

Q. Further handling, manipulation, consolidation, compositing and so on of information to convert it from one format to another or to reduce it to manageable or intelligible information. Was that a fair definition for processing?

A. Sure.

(D.I. 535 at 1313:12-17)¹⁷

¹⁷Apple submits that MobileMedia improperly relied on a dictionary definition not admitted into evidence. (D.I. 518 at 21) However, the relevant evidence was this testimony from Dr. Grimes.

(3) Analysis

The court does not find that MobileMedia's infringement position regarding how the Cortex A-8 microprocessor processes image information was new. Dr. Meldal testified during his direct examination that the Cortex A-8 microprocessor converts image information into a suitable format for emailing, and Apple's counsel did not object during that testimony. (D.I. 532 at 543:25-544:13) Apple only raised an objection in this regard during MobileMedia's cross-examination of Dr. Grimes, though it conceded that MobileMedia's counsel "can cross-examine obviously on whatever they want." (D.I. 535 at 1312:13) Although the conversion was identified as "MIME" conversion for the first time during Dr. Grimes' cross-examination, Apple was already on notice of MobileMedia's theory that image format conversion by the Cortex A-8 satisfies the "process image information" requirement. In fact, Apple's counsel cross-examined Dr. Meldal on this theory. (D.I. 532 at 678:11-679:3)

Rather, Apple's argument is essentially a claim construction argument that the "process image information" limitation only includes processes that "cause[] a change to a picture" (such as "color correction, edge enhancement, lens shading correction, gamma correction, defect correction, auto exposure, white balance, and scaling") and excludes processes that only change the format of the image information. (See D.I. 518 at 21-22) Neither party proposed a claim construction for "process image information" or objected to the court's instruction to the jury to apply the term's plain and ordinary meaning. (See D.I. 239-1 at 2-4; D.I. 505 at 20) As discussed in the context of the '068 patent, Apple waived any claim construction argument regarding the scope

of “process image information” by not requesting a construction before or during trial and, thus, implicitly conceding that the limitation’s meaning is clear. See *Broadcom Corp.*, 543 F.3d at 694; see also *ArcelorMittal France*, 811 F. Supp. 2d at 972; *Edwards Lifesciences*, 2011 WL 446203, at *4. As a result, the court rejects Apple’s argument, raised for the first time after the jury verdict, regarding the scope of “process image information.”¹⁸

The examples of processing image information that Dr. Meldal identified were provided in the context of responding to questions about the specific function of the various image processors in the iPhone, none of which are the accused “microprocessor.” (See D.I. 532 at 675:16-676:18) Dr. Meldal never referred to the term “process image information” in a way that would preclude changing the format of image information. Moreover, Apple’s expert, Dr. Grimes, agreed at trial that a fair definition of the term “processing” includes converting information from one format to another. Therefore, there was sufficient evidence for the jury to find infringement of the ‘078 patent under the ordinary meaning of “process image information,” and the court denies Apple’s renewed JMOL motion regarding infringement of the ‘078 patent.

B. Apple’s Motion for a New Trial

Alternatively, Apple moves for a new trial on grounds that the verdict is against the weight of the evidence and that MobileMedia’s counsel engaged in various

¹⁸If anything, Apple’s use of the term “image processing” (rather than “process image information”) at trial may have confused the jury in a manner that prejudiced MobileMedia. MobileMedia’s closing appropriately clarified the distinction and pointed out that Apple’s use of “image processing” was not the same as the language of the limitation at issue.

instances of improper conduct that confused the jury and unfairly prejudiced Apple. The court addresses each argument in turn.

1. MobileMedia's alleged references to damages in its closing argument

First, Apple avers that MobileMedia's counsel improperly referred to alleged damages "throughout trial." (D.I. 518 at 28) A new trial motion based on allegedly improper statements by counsel "may be granted only where the improper statements made it reasonably probable that the verdict was influenced by prejudicial statements." See *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1182 (Fed. Cir. 2002) (applying Third Circuit law).

The court entered a scheduling order on December 14, 2010 that bifurcated the issues of willfulness and damages for purposes of discovery and trial. (D.I. 17 at ¶ 2(a)) At trial, when MobileMedia referred to alleged damages in its opening statement, Apple objected and identified each violation in a three-page letter. (D.I. 530 at 194:2-9, 219:9-12, 219:17-19, 220:14-20, 223:3-6, 223:19-23; D.I. 501) The court then gave an instruction informing the jury that damages had been bifurcated, there would be no damages evidence, and they would hear nothing more about damages. (D.I. 530 at 265:5-19, 266:19-267:15, 274:23-275:4) In its post-trial briefing, Apple now submits that MobileMedia's closing argument again violated the court's bifurcation of liability and damages and invited jury confusion. (D.I. 518 at 28) Specifically, Apple cites MobileMedia's statements that companies like Nokia and Sony (from whom MobileMedia obtained the '075, '068, and '078 patents) decide to invest in patents to recover research and development costs. (D.I. 536 at 1525:3-9, 1528:22-25, 1536:1-2,

1580:17-19)

The court does not find that MobileMedia's alleged misstatements were directed at the issue of damages. Rather, they were used to explain what MobileMedia does as a non-practicing entity. MobileMedia's desire to note that patents can be used to recover investment costs was understandable in light of Apple's statements to the jury that it has thousands of patents and that "Apple and other good companies . . . develop information, develop technology, get together and exchange it in [patent] pools" (D.I. 530 at 232:5-232:20; D.I. 536 at 1661:20-1661:24) The court does not find that MobileMedia's closing argument resulted in a miscarriage of justice that would warrant a new trial.

2. MobileMedia's alleged mischaracterization of Apple's burden on invalidity

Second, Apple alleges a new trial is required because MobileMedia mischaracterized Apple's burden on invalidity as requiring "clear and convincing evidence that the examiners didn't do their job right." (D.I. 518 at 29) (citing D.I. 535 at 1578:20-23, 1556:11-13) Apple raised an objection to this language after MobileMedia's closing argument.¹⁹ (D.I. 536 at 1586:12-1587:22) MobileMedia argues that its counsel's statements echoed the statements made in the introductory video on the patent system, to which neither party objected, that "the law requires a higher standard of proof, since the PTO is presumed to have done its job correctly." (D.I. 530 at 174:2-174:4)

¹⁹Although the court did not agree with Apple's objection at trial, it noted that Apple could argue in its closing that the burden is no higher than the "clear and convincing" standard. (D.I. 536 at 1587:19-22)

With the exception of the GSM 04.83 reference for the '075 patent, Apple's invalidity theories relied on prior art references that were considered by the PTO. (See D.I. 534 at 936:17-19, 1114:1-5; D.I. 535 at 1336:13-15, 1389:21-23, 1445:25-1446:7) When the asserted prior art references were considered by the PTO during prosecution, the party with the burden of proof for invalidity "has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job" *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304 (Fed. Cir. 2008) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)). The court agrees that MobileMedia's statements were generally consistent with the burden on invalidity and the presumption that the patents are valid.²⁰ Moreover, MobileMedia's last statement in its closing correctly summarized that Apple's burden is "clear and convincing evidence the claims are invalid," and the parties do not dispute the propriety of the court's instruction to the jury regarding the burden on invalidity. (See D.I. 536 at 1581:22-25, 1682:13-25) Therefore, the court does not find that the statements of MobileMedia's counsel unfairly influenced the verdict and denies Apple's motion for a new trial on this ground. See

²⁰Apple also asserts that MobileMedia "put the PTO examiners on trial, arguing in closing, 'for you to believe Apple on the validity issue, you would have to believe the examiners were imbeciles'" (D.I. 536 at 1576:4-7, 1578:16-19) It is well-settled that "the presence and 'strength' of the presumption of validity does not warrant inquiry into the examiner's understanding or competence or gullibility." See *Norian Corp. v. Stryker Corp.*, 363 F.3d 1321, 1329 (Fed. Cir. 2004); see also *Microsoft*, 131 S. Ct. at 2245. However, the statement by MobileMedia was not referring to Apple's burden of proof on invalidity but was made in response to an argument that the examiners for the '068 patent had accepted a claim amendment without realizing that it had been made. MobileMedia was asserting that the examiners were **not** incompetent and was not putting the examiners on trial.

Edwards v. City of Philadelphia, 860 F.2d 568, 575 (3d Cir. 1988) (rejecting claim that trial court’s failure to give immediate curative instruction to improper attorney argument warranted new trial where jury instructions “sufficiently negated any prejudice that might have resulted from . . . counsel’s errant arguments to the jury”); *Collins v. Chandler*, Civ. No. 05-739, 2009 WL 3595129, at *5 (D. Del. Oct. 28, 2009) (rejecting motion for new trial, where counsel subsequently cured its improper statement of law and jury was properly instructed on the law).

3. MobileMedia’s alleged reliance on new claim constructions, expert testimony, and theories of infringement and validity

Third, Apple asserts that a new trial is necessary because MobileMedia relied on new claim constructions, expert testimony, and theories of infringement and invalidity. (D.I. 518 at 29-30) With the exception of validity and infringement of the ‘075 patent and validity of claim 24 of the ‘068 patent, the court has found that the record sufficiently supports the jury’s verdict. Therefore, for the same reasons as discussed *supra* and in light of the court’s grant of the renewed JMOL motion with respect to the ‘075 patent and invalidity of claim 24 of the ‘068 patent, the court denies Apple’s motion for a new trial on grounds that MobileMedia relied on unvetted arguments and theories.

4. Other alleged critical misstatements of law and/or fact by MobileMedia in closing

Finally, Apple argues that MobileMedia made other miscellaneous “critical misstatements of law and/or fact in closing that were misleading to the jury and unfairly prejudicial to Apple” (*Id.* at 30) Specifically, Apple avers that MobileMedia improperly suggested that: (1) Apple had the burden to prove that one of ordinary skill

would have known the contents of the prior art (D.I. 534 at 1150:19-22, 1157:24-1158:8); (2) the '075, '068, and '078 patents could not be obvious if Apple had not proven all limitations were present in a single document (*id.* at 1137:14-17, 1142:3-11, 1151:14-16; D.I. 536 at 1574:14-18, 1575:19-22, 1580:14-16, 1668:8-9); (3) Apple participated in the reexaminations and was able to communicate with the examiner (D.I. 534 at 1011:8-1011:25; D.I. 535 at 1337:5-1339:8, 1344:4-11; D.I. 536 at 1552:4-22, 1581:7-12); and (4) four examiners had considered Apple's invalidity arguments and "signed off" on the patents' validity. (D.I. 536 at 1520:4-22, 1522:10-25, 1580:24-1581:12)

The first two alleged misstatements were not objected to at trial and, thus, cannot be raised now. A party's failure to object at trial to the issue it wishes to raise post-trial is fatal to its argument. *See ArcelorMittal France*, 811 F. Supp. 2d at 971 ("Once again, as defendants point out, plaintiffs did not object to defendants' closing and, therefore, plaintiffs' objections are waived."); *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 434 F. Supp. 2d 308, 318 (D. Del. 2006) (declining to consider, for purposes of a motion for a new trial, issues not properly preserved through a contemporaneous objection at trial), *rev'd in part*, 554 F.3d 982 (Fed. Cir. 2009). In addition, the court instructed the jury regarding those issues – that a person of ordinary skill in the art is presumed to know all of the prior art and that Apple had asserted theories of obviousness. Therefore, the court does not find that MobileMedia's statements unfairly influenced the verdict.

With respect to the third and fourth alleged misstatements (that Apple had

participated in the reexaminations and that the examiners had “signed off” on the patents’ validity), Apple requested permission to argue to the jury that the submissions to the PTO were provided by MobileMedia, not Apple – a request to which MobileMedia consented. (D.I. 536 at 1582:15-1584:2) Accordingly, there was no prejudice to Apple. In addition, the only asserted prior art reference that was not considered by the PTO was the GSM 04.83 reference for the ‘075 patent. (See D.I. 518 at 30) (citing D.I. 534 at 1113:21-1114:12; D.I. 535 at 1445:25-1446:7) To the extent the PTO did not consider GSM 04.83 when it “signed off” on the ‘075 patent’s validity, the issue is moot in light of the court’s grant of Apple’s renewed JMOL motion for invalidity of the ‘075 patent. Accordingly, Apple’s motion for a new trial is denied.

V. CONCLUSION

For the foregoing reasons, the court grants Apple’s renewed motion for JMOL with respect to invalidity and non-infringement of the ‘075 patent, as well as invalidity of claim 24 of the ‘068 patent. The court denies Apple’s renewed motion for JMOL in all other respects and also denies Apple’s alternative motion for a new trial. An appropriate order shall issue.